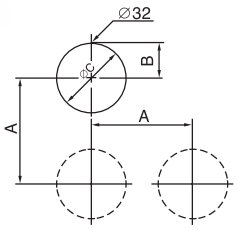
UPDATED MAY 2026

PUSH BUTTON SWITCH
สวิตช์กด
Ø22 / Ø25

PANEL CUT-OUT
Ø22 / Ø25 Series



DIMENSIONS (mm)

Series		Ø22	Ø25
A	Pilot Lamp Push Button Selector	31 min.	
	Mushroom Head	39 min.	
B	All Types	11.2	12.7
C	All Types	22.4	25.4

CONTACT LATING

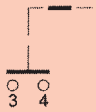
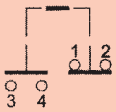
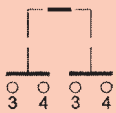
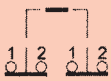
		AC24V	AC110V	AC220V	AC380V	AC440V
AC	AC11 Inductive load	7.5A	4.5A	3A	2A	2A
	AC14 Inductive load	7.5A	7.5A	4.5A	4A	4A

		DC24V	DC110V	DC220V	DC380V
DC	DC11 Inductive load	1.5A	0.5A	0.2A	0.1A
	DC14 Inductive load	10A	2A	0.6A	0.2A

CHARACTORISTICS

Operating frequency	Mechanically	Push button (momentary) 60 cycle/ min. others 30 cycles/min.
	Electrically	30 cycles/ min.
Service life	Mechanically	Push button (momentary) 3,000,000 operations., other 300,000 operations.
	Electrically	Push button (momentary) 500,000 operations., other 200,000 operations.
Shock	Durability	1000 m/s²
	Malfunction	Push button (momentary) 1,000 m/s² , others 250 m/s²
Vibration	Malfunction	10-55 Hz double amplitude 1.5 mm
Contact resistance	50 mΩ max. (intial value)	
Insulation resistance	100 MΩ min. (500 VDC)	
Dielectric strength	2,500 VAC, 50/60 Hz for 1 minute	
Ambient temperature	-20˚C ~ +60˚C	
Humidity	45 ~ 85% RH	

WIRING DIAGRAM

Type	TS2-A	TS2-B	TS2-C	TS2-2A	TS2-2B
Contact	1a	1b	1a1b	2a	2b
Contact arrangement					

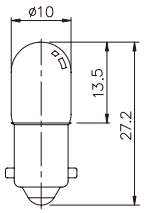
BULB TYPE AND CHARACTORISTICS

Lamp type	Signal	Rated voltage	Signal	Operating voltage	Rated current	Color code	Signal	Designation
Incandescent	I	6V AC/ DC	6	6V AC/ DC	150 mA	None	None	I - 6
		12V AC/ DC	12	12V AC/ DC	100 mA			
		18V AC/ DC	18	18V AC/ DC	66 mA			
		24V AC/ DC	24	24V AC/ DC	50 mA			
		30V AC/ DC	30	30V AC/ DC	40 mA			
LED	L	6V AC/ DC	6	6V AC/ DC	9-13 mA	Red	R	L - 110 - R
		12V AC/ DC	12	12V AC/ DC	9-13 mA	Blue	BL	
		24V AC/ DC	24	24V AC/ DC	8-13 mA	Green	G	
		110V AC	110	110V AC	3-5 mA	White	W	
		220V AC	220	220V AC	3-5 mA	Orange	O	

DIMENSIONS OF BULB

2S - 9 - ☐



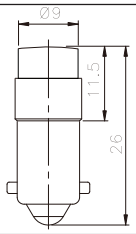


Incandescent bulb

6V	17.-
12V	20.-
18V	20.-
30V	25.-

2S - 9TL - ☐☐





LED bulb

G, W, BL, R, O 91.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

PUSH BUTTON SWITCH
สวิตช์กด
Ø22 / Ø25

MODEL DESIGNATIONS

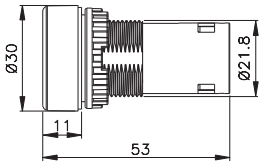
TS2 BF R - A
1 2 3 4

Designation	Signal	Description
1.Mounting hole	TS2	Ø22 mm / Ø25 mm
2.Type	BF	Flat head
	BL	Long head
	BM	Mushroom head
3.Lens color	R	Red
	G	Green
	Y	Yellow
	W	White
	B	Black
4.Type of contact blocks fitted	A	1a (1NO)
	B	1b (1NC)
	C	1a1b (1NO 1NC)
	2A	2a (2NO)
	2B	2b (2NC)

OPERATING HEAD DIMENSIONS

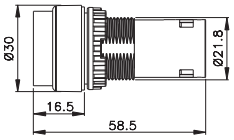
TS2BF สวิตช์กดหัวเรียบ 22/25 มม. **TS2BF-2A, 2B 110.-**
TS2BF-1A, 1B 100.- **TS2BF-1C 110.-**





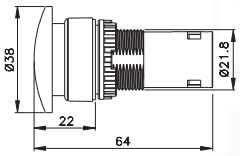
TS2BL สวิตช์กดหัวนูน 22/25 มม. **TS2BL-2A, 2B 120.-**
TS2BL-1A, 1B 110.- **TS2BL-1C 120.-**





TS2BM สวิตช์กดหัวเห็ด 22/25 มม. **TS2BM-2A, 2B 135.-**
TS2BM-1A, 1B 130.- **TS2BM-1C 135.-**





ILLUMINATED PUSH BUTTON (TS2 Ø22 / Ø25) Direct Power

MODEL DESIGNATION

TS2 IL 1 R - I A
1 2 3 4 5 6

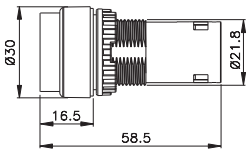
Designation	Signal	Description
1.Mounting hole	TS2	Ø22 mm / Ø25 mm
2.Type	IL	long head
	IM	Mushroom head
3.Voltage	1	110V AC LED
	2	220V AC LED
	5	6V AC/ DC incandescent - LED
	6	18V AC/ DC incandescent
	7	24V AC/ DC incandescent - LED
	8	30V AC/ DC incandescent
	9	12V AC/ DC incandescent - LED

Designation	Signal	Description
4.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
5.No. of contact fitted	I	Incandescent
	L	LED
6.Type of contact block fitted	A	1a (1NO)
	B	1b (1NC)

OPERATING HEAD DIMENSIONS

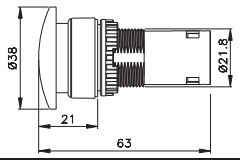
TS2IL สวิตช์กดหัวนูนมีแลมป์ 22/25 มม.
TS2IL-I 180.- **TS2IL-L(R, O, G, W, BL) 240.-**



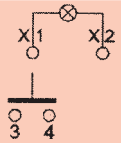
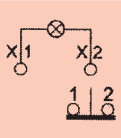


TS2IM สวิตช์กดหัวเห็ดมีแลมป์ 22/25 มม.
TS2IM-I 205.- **TS2IM-L(R, O, G, W, BL) 265.-**



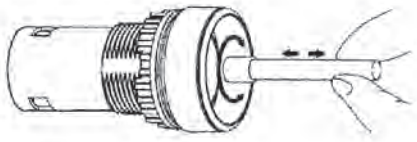


ILLUMINATED PUSH BUTTON (DIRECT POWER) CONTACT BLOCKS

Type	TN2-A	TN2-B
Contact	1a	1b
Contact arrangement		

METHOD TO REPLACE LAMP :

Put the fixing-disassembling tool into the lamp, turn clockwise and the lamp is fixed.
If counter-clockwise, the lamp is disassembling.



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราค

tend SELECTOR SWITCH
สวิตช์ลูกศร
Ø22 / Ø25

MODEL DESIGNATIONS

TS2 SS 1 R - A

1 2 3 4 5

Designation	Signal	Description
1.Mounting hole	TS2	Ø22 mm / Ø25 mm
2.Type	SS	Knob Operator
3.Positions	1	90˚x 2 Position
	2	45˚x 2 3 Position
	3	45˚x 2 3 Position Spring return from right
	4	45˚x 2 3 Position Spring return from left
	5	45˚x 2 3 Position 2 Way Spring return

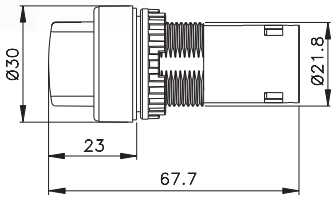
Designation	Signal	Description	
4.Lens color	R	Red	
	G	Green	
	B	Black	
5.Type of contact block fitted		2-Positions	3-Positions
	A	1a (1NO)	-----
	B	1b (1NC)	-----
	C	1a1b (1NO 1NC)	1a 0 1a
	2A	2a (2NO)	-----
	2B	2B (2NC)	-----

OPERATING HEAD DIMENSIONS

TS2SS สวิตช์ลูกศร



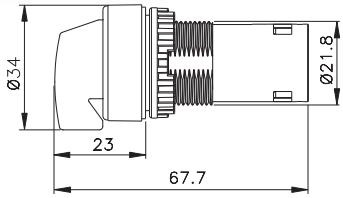
TS2SS-1A,1B	135.-
TS2SS-1-1C	145.-
TS2SS-1-2A,2B	145.-
TS2SS-2-2A	145.-
TS2SS-3-2A	145.-
TS2SS-4-2A	145.-
TS2SS-5-2A	145.-



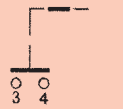
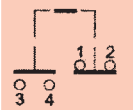
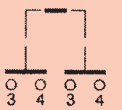
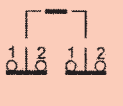
TS2SH สวิตช์ลูกศร



TS2SH-1A,1B	145.-
TS2SH-1-1C	160.-
TS2SH-1-2A,2B	160.-
TS2SH-2-2A	160.-
TS2SH-3-2A	160.-
TS2SH-4-2A	160.-
TS2SH-5-2A	160.-



SELECTOR SWITCH 2-POSITIONS CONTACT ARRANGEMENT

Type	TS2-A	TS2-B	TS2-C	TS2-2A	TS2-2B
Contact	1a	1b	1a1b	2a	2b
Contact arrangement					

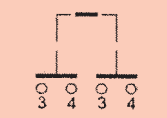
Contact	0	1
3-4		X

Contact	0	1
1-2	X	
3-4		X

Contact	0	1
3-4		X
3-4		X

Contact	0	1
1-2	X	
1-2	X	

SELECTOR SWITCH 3-POSITIONS CONTACT ARRANGEMENT

Type	TS2-C
Contact	1a 0 1a
Contact arrangement	

Contact	1	0	2
3-4	X		
3-4			X

PILOT LAMP / BUZZER
ไพล็อตแลมป์ / ออดไฟฟ้า
Ø22 / Ø25

MODEL DESIGNATIONS

TS2 D 1 - R
1 2 3 4

Designation	Signal	Description
1.Mounting hole	TS2	Ø22 mm / Ø25 mm
2.Type	D	LED Continuous light
	F	LED Flashing light
3.Voltage	1	110V AC
	2	220V AC
	3	380V AC
	4	440V AC
	7	24V AC/ DC
	9	12V AC/ DC
4.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue

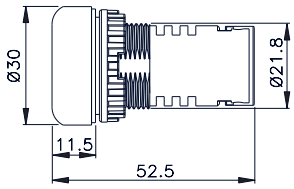
PILOT LAMP (DIRECT POWER)

DIMENSIONS

TS2D ไพล็อตแลมป์ (ใช้หลอด LED)

- ชนิดติดต่อเนื่อง
  TS2D (R, O, G, W, BL) 105.-
- ชนิดติดกะพริบ
  TS2F (R, O, G, W, BL) 160.-





BUZZER AND BUZZER PILOT LAMP (TS2 Ø22 / Ø25)
ออดไฟฟ้า

MODEL DESIGNATIONS

TS2 BC 1
1 2 3

- The color of lens for buzzer pilot lamp is red.
- The color of lens for buzzer is black.

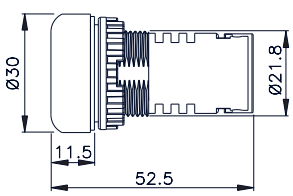
Designation	Signal	Description
1.Mounting hole	TS2	Ø22 mm / Ø25 mm
2.Type	BC	Continuous buzzer
	BI	Intermittence buzzer
	BCL	Continuous light with audible alarm
	BIL	Flashing light with audible alarm
3.Voltage	1	110V AC
	2	220V AC
	7	24V AC/ DC
	9	12V AC/ DC

BUZZER AND BUZZER PILOT LAMP DIMENSIONS

- ออดชนิดมีแลมป์ (LED)

TS2BCL ออดชนิดดังต่อเนื่องมี LED แลมป์ 340.-
TS2BIL ออดชนิดดังไม่ต่อเนื่องมี LED แลมป์ 340.-

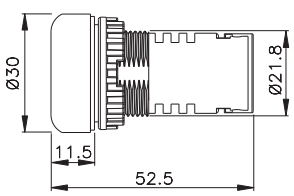




- ออดชนิดไม่มีแลมป์

TS2BC ออดชนิดดังต่อเนื่อง 320.-
TS2BI ออดชนิดดังไม่ต่อเนื่อง 320.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราค

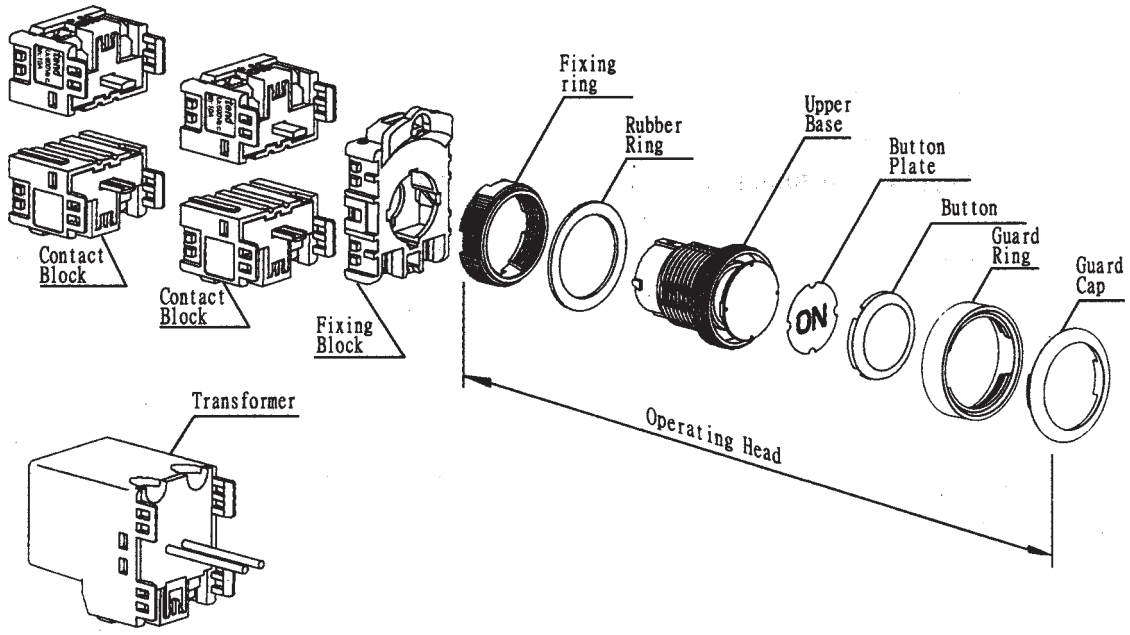
tend SERIES CONTROL COMPONENTS

IP40

Ø22 / Ø25 / Ø30

The operating head and contact block of TN2 series are detachable. The protection structure for this series is IP65 (IEC144) for waterproof, oil tight and dust proof in harsh environment except Twin-Touch push button switches which are IP40.

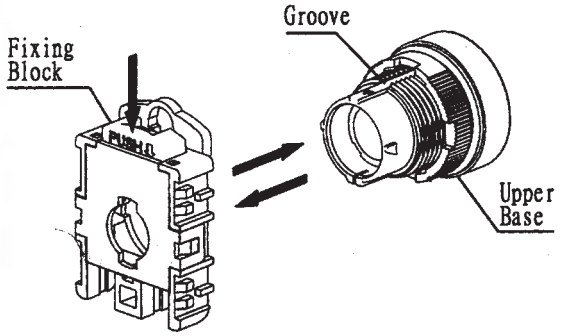
CONFIGURATION OF SWITCHS



FEATURES

TN2 series switches are detachable in 3 sub-assembly. It consists of upper base, fixing block and contact block

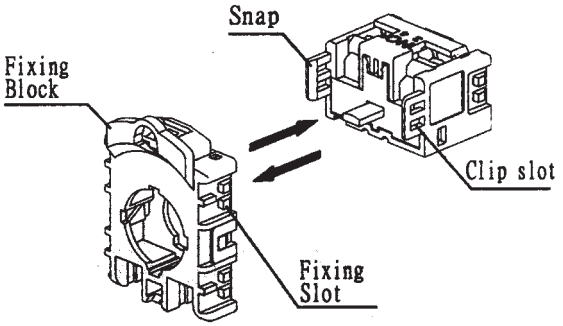
- Assembly and disassembly of fixing block with upper base



Assembly : Align the hole on top of fixing block with groove on the upper base and push them together.

Disassembly : Place downward by hand or use flat screwdriver to push down the orange button thru the hole on top of fixing block.

- Assembly and disassembly of fixing block with contact block

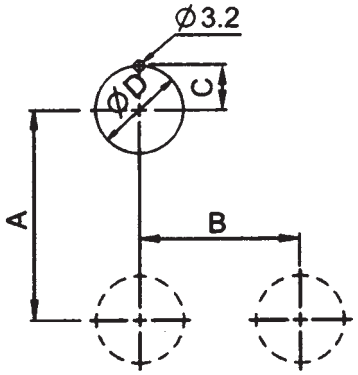


Assembly : Align the fixing slot on the fixing block to clip slot on the contact block.

Disassembly : Use flat screwdriver toward fixing slot to lift up clip and snap for disassembly.

tend SERIES CONTROL COMPONENTS
Ø22 / Ø25 / Ø30

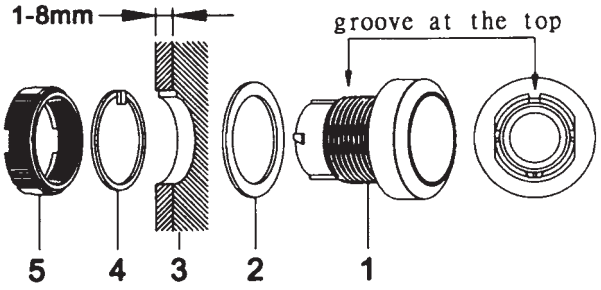
PANEL CUT-OUT



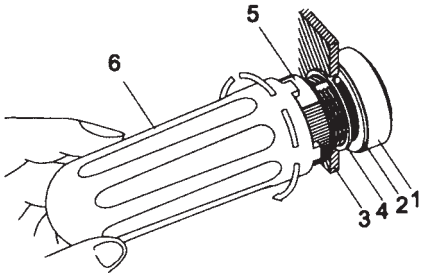
DIMENSIONS (mm)

Series		Ø22	Ø25	Ø30
A	All types except Twin-Touch & Joystick	50 min.		
	Twin-Touch	60 min.		
	Joystick	90 min.		
B	Light push button & Selector with name plate	31	31	35
		41 min.		
	Mushroom, Push-Lock, Long & Lever Selector, Twin-Touch	39 min.		
	Joystick	90 min.		
C	All types	11.2	12.7	15.2
D	All types	22.4	25.4	30.4

MOUNTING METHOD



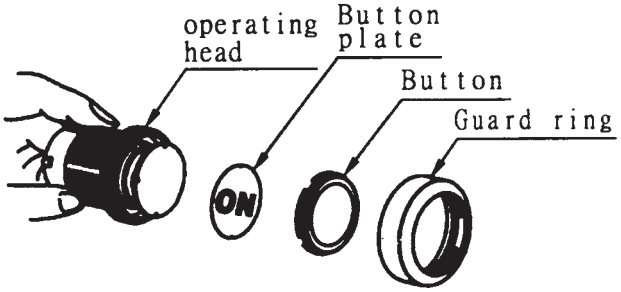
1	2	3	4	5	6
Operting Head	Rubber Ring	Panel	Stop Ring	Fixing Ring	Fixing Tool



- Install the operating head and rubber ring through the front panel and tighten fixing ring with fixing tool.

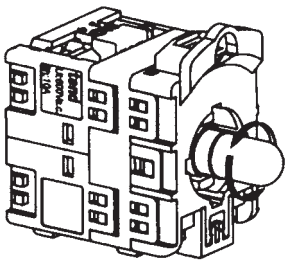
INDICATION OF LETTERS AND SYMBOLS

Transparent printing paper

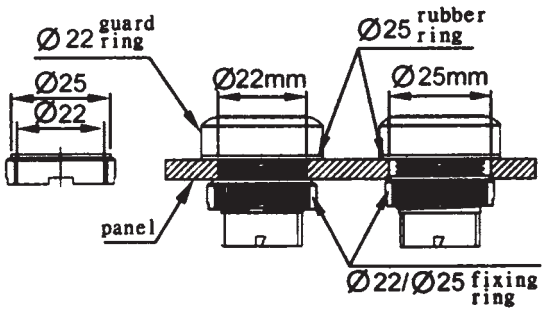


METHOD TO REPLACE LAMP

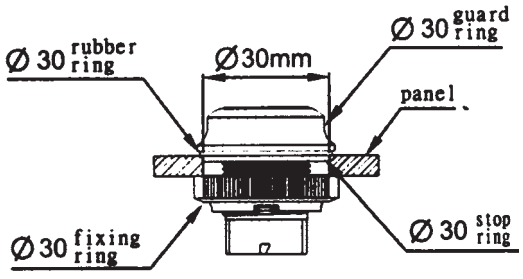
Disassembly fixing block from operating read and turn the lamp.



Ø22 mm / Ø25 mm SERIES ARE THE SAME DIMENSIONS WITH COMMON FIXING RING



THE ASSEMBLY METHOD FOR Ø30 SERIES



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราค

tend SERIES CONTROL COMPONENTS
Ø22 / Ø25 / Ø30

TYPE OF FIXING BLOCK (There are three different types of fixing blocks)

STANDARD Fixing block (TN2-1)
บ๊อกใช้กับสวิตช์ที่ไม่มีแลมป์ใช้ต่อกับคอนแทคบ๊อก
35.-



Direct Fixing block (TN2-2)
บ๊อกใช้กับสวิตช์ที่มีแลมป์ใช้ต่อกับคอนแทคบ๊อก
165.-



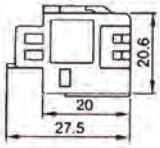
Transformer type Fixing block (TN2-3)
บ๊อกใช้กับสวิตช์ที่มีแลมป์ชนิดใช้หม้อแปลงใช้ต่อกับคอนแทคบ๊อก
165.-



TYPE OF CONTACT BLOCK AND EXTENTION OF CONTACT BLOCK THERE ARE 1a(1NO), 1b(1NC), AND 1c(1NO, 1NC), 1ab(1NO+1NC)

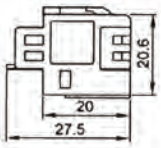
TN2-A(1a)
คอนแทคบ๊อก (1 NO)
สามารถต่อได้ถึง 4C (หรือ 8a)
100.-





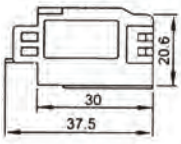
TN2-B(1b)
คอนแทคบ๊อก (1 NC)
สามารถต่อได้ถึง 4C (หรือ 8a)
100.-





TN2-C(1c)
คอนแทคบ๊อก 1C (1NO,1 NC)
สามารถต่อได้ถึง 2C (หรือ 4a, หรือ 4b)
120.-





CONTACT BLOCKS CAN HAVE FOLLOWING 3 STYLES. IT DEPENDS ON THE FIXING BLOCKS

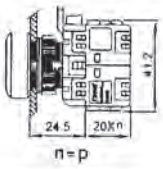
- Standard contact block : standard fixing block with contact block. It can be extended to 4C (or 8a or 8 b) used in non-illuminated products.
- Direct contact block : direct fixing block with contact block. It can be extended to 4C (or 8a or 8b) used in illuminated products.
- Transformer type contact block : Transformer type fixing block with contact block. It can be extended to 2C (or 4a or 4b) used in transformer illuminated products.

DIMENSIONS OF STANDARD CONTACT BLOCK
คอนแทคบ๊อกสำเร็จรูปสำหรับสวิตช์กด

TN2-1a~TN2-8a
TN2-1b~TN2-8b



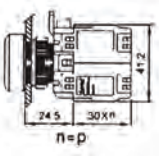
TN2-1A	135.-
TN2-1B	135.-



TN2-1c~TN2-4c



TN2-1C	155.-
TN2-1AB	235.-
TN2-2A	235.-
TN2-2B	235.-
TN2-2C	275.-



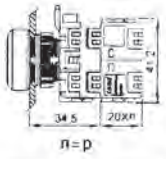
หมายเหตุ :
คอนแทค TN2-1ab หมายถึง TN2-a + TN2-b (1a+1b) คอนแทค 2 ตัว

DIMENSIONS OF DIRECT CONTACT BLOCK
คอนแทคบ๊อกสำเร็จรูปสำหรับสวิตช์กดชนิดมีแลมป์

TN2-I1a~TN2-I8a
TN2-I1b~TN2-I8b



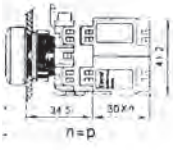
TN2-I1A	265.-
TN2-I1B	265.-



TN2-I1c~TN2-I4c



TN2-I1C	285.-
TN2-I1AB	365.-
TN2-I2A	365.-
TN2-I2B	365.-
TN2-I2C	405.-



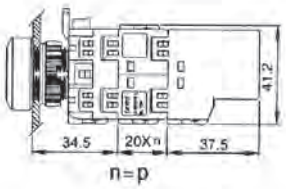
หมายเหตุ :
คอนแทค TN2-C หมายถึง TN2-C (1a,1b) อยู่ในคอนแทคตัวเดียว

tend SERIES CONTROL COMPONENTS
Ø22 / Ø25 / Ø30

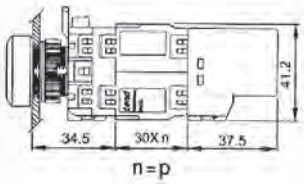
DIMENSIONS OF TRANSFORMER TYPE OF CONTACT BLOCK
คอนแทคบ๊อกสำเร็จรูปสำหรับสวิตช์มีแลมป์ชนิดหม้อแปลง

TN2-T1A	445.-	TN2-T2A	545.-	TN2-T1AB(1N0+1NC)	545.-	TN2-T1C(1N0,1NC)	485.-
TN2-T1B	445.-	TN2-T2B	545.-			TN2-T2C(2N0,2NC)	605.-









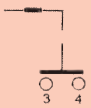
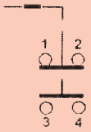
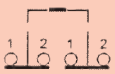
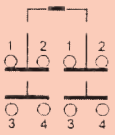
CONTACT RATING

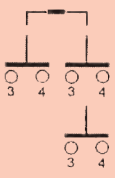
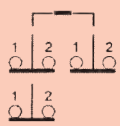
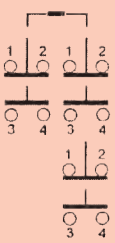
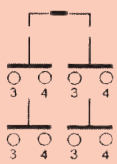
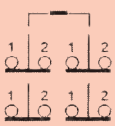
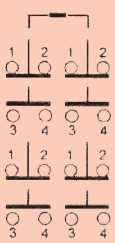
		AC24V	AC110V	AC220V	AC380V	AC440V			DC24V	DC110V	DC220V	DC380V
AC	AC11 Inductive load	10A	6A	4A	2.5A	2A	DC	DC11 Inductive load	1.5A	0.5A	0.2A	0.1A
	AC14 Resistive load	10A	10A	6A	5A	4A		DC14 Resistive load	10A	2A	0.6A	0.2A

CHARACTERISTICS

Operating frequency	Mechanically	Push button (momentary) 60 cycle/ min. others 30 cycles/min.
	Electrically	30 cycles/ min.
Service life	Mechanically	Push button (momentary) 3,000,000 operations., other 300,000 operations.
	Electrically	Push button (momentary) 500,000 operations., other 200,000 operations.
Shock	Durability	Transformer series 600 m/s² , other 1000 m/s²
	Malfunction	Push button (momentary) 1,000 m/s² , others 250 m/s²
Vibration	Malfunction	10-55 Hz double amplitude 1.5 mm
Contact resistance	50 mΩ max. (intial value)	
Insulation resistance	100 MΩ min. (500 VDC)	
Dielectric strength	2,500 VAC, 50/60 Hz for 1 minute	
Ambient temperature	-20 ˚C ~ +60 ˚C	
Humidity	45 ~ 85% RH	

STANDARD CONTACT BLOCKS

Type	TN2-1A	TN2-1B	TN2-1C	TN2-2A	TN2-2B	TN2-2C
Contact	1a	1b	1c	2a	2b	2a2b
Contact arrangement						

Type	TN2-3A	TN2-3B	TN2-3C	TN2-4A	TN2-4B	TN2-4C
Contact	3a	3b	3c	4a	4b	4a4b
Contact arrangement						

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราค

tend PUSH BUTTON SWITCH

สวิตช์กด IP65 IEC44

Ø22 / Ø25 / Ø30

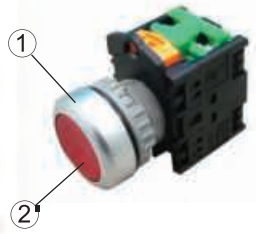
The contact block of this series is standard

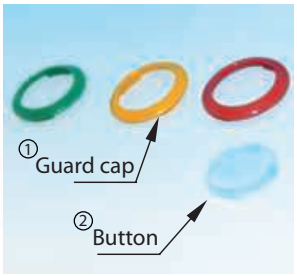
MODEL DESIGNATION

TN2 BF R - 1 A

1 2 3 4 5

It must use transparent button to have marking printing on buttons. The colors can be distinguished by using different color guard ring.





Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	BF	Flat head
	BL	Long head
	BM	Mushroom head
	BA	Long head (Alternate)
	BK	Push-Lock
	BP	Push-Pull
	BT	Twin-Touch
3.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	B	Blue
4.No. of contact fitted	1	1
	2	2
	3	3
	4	4
5.Type of contact block fitted	A	1a(1 NO)
	B	1b(1 NC)
	C	1a1b(1 NO 1 NC)

+ Only used with AB contact

OPERATING HEAD DIMENSIONS

TN2BF สวิตช์กดหัวเรียบ 22/25 มม.



TN2BF-1A,1B	180.-
TN2BF-1C	200.-
TN2BF-1AB	280.-

TN3BF สวิตช์กดหัวเรียบ 30 มม.



TN3BF-1A,1B	190.-
TN3BF-1C	210.-
TN3BF-1AB	290.-

TN2BL สวิตช์กดหัวนูน 22/25 มม.



TN2BL-1A,1B	190.-
TN2BL-1C	210.-
TN2BL-1AB	290.-

TN3BL สวิตช์กดหัวนูน 30 มม.



TN3BL-1A,1B	200.-
TN3BL-1C	220.-
TN3BL-1AB	300.-

TN2BM สวิตช์กดหัวเห็ด 22/25 มม.



TN2BM-1A,1B	200.-
TN2BM-1C	220.-
TN2BM-1AB	300.-

TN3BM สวิตช์กดหัวเห็ด 30 มม.



TN3BM-1A,1B	210.-
TN3BM-1C	230.-
TN3BM-1AB	310.-

TN2BA สวิตช์กดจมหัวนูน 22/25 มม.



TN2BA-1A,1B	325.-
TN2BA-1C	345.-
TN2BA-1AB	425.-

TN3BA สวิตช์กดจมหัวนูน 30 มม.



TN3BA-1A,1B	340.-
TN3BA-1C	360.-
TN3BA-1AB	440.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

PUSH BUTTON SWITCH
สวิตช์กด IP65 IEC44
Ø22 / Ø25 / Ø30

TN2BK สวิตช์กดชนิดกันน้ำ,กันน้ำมัน,กันฝุ่น 22/25 มม.



TN2BK-1A,1B	300.-
TN2BK-1C	320.-
TN2BK-1AB	400.-

มีเฉพาะสีแดงเท่านั้น
(Only red color)

TN3BK สวิตช์กดล็อคหัวเห็ด 30 มม.



TN3BK-1A,1B	310.-
TN3BK-1C	330.-
TN3BK-1AB	410.-

มีเฉพาะสีแดงเท่านั้น
(Only red color)

TN2BP สวิตช์กดแบบดึงเข้า-ออก 22/25 มม.



TN2BP-1A,1B	530.-
TN2BP-1C	550.-
TN2BP-1AB	630.-

มีเฉพาะสีแดงเท่านั้น
(Only red color)

TN3BP สวิตช์กดแบบดึงเข้า-ออก 30 มม.



TN3BP-1A,1B	540.-
TN3BP-1C	560.-
TN3BP-1AB	640.-

มีเฉพาะสีแดงเท่านั้น
(Only red color)

TN2BT สวิตช์กด ปิด-เปิด 22/25 มม.
(ยกเว้นรุ่นนี้เป็น IP40)



TN2BT-1AB
450.-

TN3BT สวิตช์กด ปิด-เปิด 30 มม.
(ยกเว้นรุ่นนี้เป็น IP40)



TN3BT-1AB
460.-

Waterproof cap for twin touch push button switch for T2BTL, T3BTL

TN2-BTW
135.-

BULB TYPE AND CHARACTERISTICS

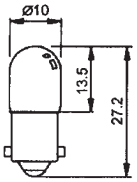
BA9S - 11 X 28 mm - 1.2 W max

Lamp type	Signal	Rated voltage	Signal	Operating voltage	Rated current	Color code	Signal	Designation
Incandescent	I	6V AC/ DC	6	6V AC/ DC	150 mA	None	None	I - 6
		12V AC/ DC	12	12V AC/ DC	100 mA			
		18V AC/ DC	18	18V AC/ DC	66 mA			
		24V AC/ DC	24	24V AC/ DC	50 mA			
		30V AC/ DC	30	30V AC/ DC	40 mA			
Neon bulb	N	110V AC/ DC	110	110V AC/ DC	1.3 mA	Red	R	N - 110 R
		220V AC/ DC	220	220V AC/ DC	2.2 mA	Green	G	
		380V AC/ DC	380	380V AC/ DC	1.15 mA	Blue	BL	
		440V AC/ DC	440	440V AC/ DC	1.4 mA			
LED bulb	L	6V AC/ DC	6	6V AC/ DC	9 ~ 13 mA	Red	R	L - 24 R
		24V AC/ DC	24	24V AC/ DC	8 ~ 13 mA	Green	G	
		30V AC/ DC	30	30V AC/ DC	8 ~ 13 mA	Orange	O	
		110V AC/ DC	110	110V AC/ DC	3 ~ 5 mA	Blue	BL	
		220V AC/ DC	220	220V AC/ DC	3 ~ 5 mA	White	W	

DIMENSIONS BULB

2S - 9 - ☐ 6V 17.- 18V 20.- 12V 20.- 30V 25.-

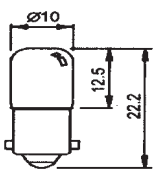




Incandescent

2S - 9 - ☐ 32.-

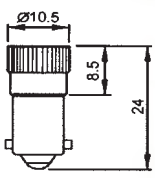




Neon Bulb

2S - 9TL - ☐☐ 91.-





LED Bulb
R,O,G,W,BL

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราค

tend ILLUMINATED PUSH BUTTON SWITCH

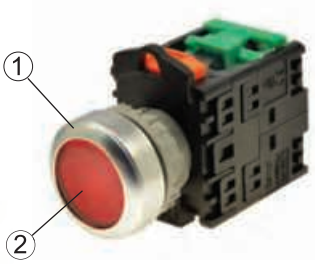
สวิตช์กดมีแลมป์ IP65

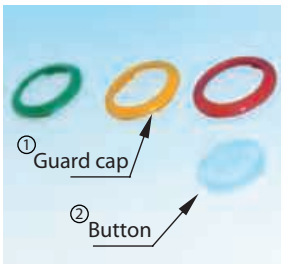
Ø22 / Ø25 / Ø30

The contact block for this series is direct contact block

MODEL DESIGNATION

TN2	IF	1	R	-	N	1	A	06
①	②	③	④		⑤	⑥	⑦	⑧





It must use transparent button to have marking printing on buttons. The colours can be distinguished by using different colour guard ring.

Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	IF	Flat head
	IL	Long head
	IM	Mushroom head
	IA	Long head (Alternate)
	IK	Push-Lock
	IT	Twin-Touch
3.Voltage	1	110V AC (Neon LED bulb)
	2	220V AC (Neon LED bulb)
	3	380V AC (Neon bulb)
	4	440V AC (Neon bulb)
	5	6V AC/ DC (Incandescent LED bulb)
	6	18V AC/ DC (Incandescent)
	7	24V AC/ DC (Incandescent LED bulb)
	8	30V AC (Incandescent LED bulb)
	9	12V AC/ DC (Incandescent)
4.Lens color	R	Red
	G	Greed
	O	Orange
	W	White
	YG	Olivine
5.Lamp	I	Incandescent
	N	Neon bulb
	L	LED bulb
6.No. of contact fitted	1	1
	2	2
	3	3
	4	4
7.Type of contact block fitted	A	1a (1NO)
	B	1b (1NC)
	C	1a1b (1NO 1NC)

OPERATING HEAD DIMENSIONS

TN2IF สวิตช์กดมีแลมป์หัวเรียบ 22/25 มม.



ชนิดหลอดธรรมดา	
TN2IF-I1A,1B	330.-
TN2IF-I1C	350.-
TN2IF-I1AB	430.-

ชนิดหลอด นีออน	
TN2IF-N1A,1B	345.-
TN2IF-N1C	365.-
TN2IF-N1AB	445.-

ชนิดหลอด LED	
TN2IF-L1A,1B (R,O,G,W,BL)	405.-
TN2IF-L1C (R,O,G,W,BL)	425.-
TN2IF-L1AB (R,O,G,W,BL)	505.-

TN3IF สวิตช์กดมีแลมป์หัวเรียบ 30 มม.



ชนิดหลอดธรรมดา	
TN3IF-I1A,1B	345.-
TN3IF-I1C	365.-
TN3IF-I1AB	445.-

ชนิดหลอด นีออน	
TN3IF-N1A,1B	350.-
TN3IF-N1C	370.-
TN3IF-N1AB	450.-

ชนิดหลอด LED	
TN3IF-L1A,1B (R,O,G,W,BL)	415.-
TN3IF-L1C (R,O,G,W,BL)	435.-
TN3IF-L1AB (R,O,G,W,BL)	515.-

TN2IL สวิตช์กดมีแลมป์หัวนูน 22/25 มม.



ชนิดหลอดธรรมดา	
TN2IL-I1A,1B	340.-
TN2IL-I1C	360.-
TN2IL-I1AB	440.-

ชนิดหลอด นีออน	
TN2IL-N1A,1B	355.-
TN2IL-N1C	375.-
TN2IL-N1AB	455.-

ชนิดหลอด LED	
TN2IL-L1A,1B (R,O,G,W,BL)	425.-
TN2IL-L1C (R,O,G,W,BL)	445.-
TN2IL-L1AB (R,O,G,W,BL)	525.-

TN3IL สวิตช์กดมีแลมป์หัวนูน 30 มม.



ชนิดหลอดธรรมดา	
TN3IL-I1A,1B	350.-
TN3IL-I1C	370.-
TN3IL-I1AB	450.-

ชนิดหลอด นีออน	
TN3IL-N1A,1B	365.-
TN3IL-N1C	385.-
TN3IL-N1AB	465.-

ชนิดหลอด LED	
TN3IL-L1A,1B (R,O,G,W,BL)	435.-
TN3IL-L1C (R,O,G,W,BL)	455.-
TN3IL-L1AB (R,O,G,W,BL)	535.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ IP65

Ø22 / Ø25 / Ø30

TN2IM สวิตช์กดหัวเห็ดมีแลมป์ 22/25 มม.



ชนิดหลอดธรรมดา	
TN2IM-I1A,1B	365.-
TN2IM-I1C	385.-
TN2IM-I1AB	465.-

ชนิดหลอด นีออน	
TN2IM-N1A,1B	380.-
TN2IM-N1C	400.-
TN2IM-N1AB	480.-
ชนิดหลอด LED	
TN2IM-L1A,1B (R,O,G,W,BL)	430.-
TN2IM-L1C (R,O,G,W,BL)	450.-
TN2IM-L1AB (R,O,G,W,BL)	530.-

TN3IM สวิตช์กดหัวเห็ดมีแลมป์ 30 มม.



ชนิดหลอดธรรมดา	
TN3IM-I1A,1B	375.-
TN3IM-I1C	395.-
TN3IM-I1AB	475.-

ชนิดหลอด นีออน	
TN3IM-N1A,1B	390.-
TN3IM-N1C	410.-
TN3IM-N1AB	490.-
ชนิดหลอด LED	
TN3IM-L1A,1B (R,O,G,W,BL)	440.-
TN3IM-L1C (R,O,G,W,BL)	460.-
TN3IM-L1AB (R,O,G,W,BL)	540.-

TN2IA สวิตช์กดมีแลมป์กดจม 22/25 มม.



ชนิดหลอดธรรมดา	
TN2IA-I1A,1B	465.-
TN2IA-I1C	485.-
TN2IA-I1AB	565.-

ชนิดหลอด นีออน	
TN2IA-N1A,1B	480.-
TN2IA-N1C	500.-
TN2IA-N1AB	580.-
ชนิดหลอด LED	
TN2IA-L1A,1B (R,O,G,W,BL)	535.-
TN2IA-L1C (R,O,G,W,BL)	555.-
TN2IA-L1AB (R,O,G,W,BL)	635.-

TN3IA สวิตช์กดมีแลมป์กดจม 30 มม.



ชนิดหลอดธรรมดา	
TN3IA-I1A,1B	480.-
TN3IA-I1C	500.-
TN3IA-I1AB	580.-

ชนิดหลอด นีออน	
TN3IA-N1A,1B	490.-
TN3IA-N1C	510.-
TN3IA-N1AB	590.-
ชนิดหลอด LED	
TN3IA-L1A,1B (R,O,G,W,BL)	545.-
TN3IA-L1C (R,O,G,W,BL)	565.-
TN3IA-L1AB (R,O,G,W,BL)	645.-

TN2IK สวิตช์กดหัวเห็ดมีแลมป์กดล็อค 22/25 มม.



ชนิดหลอดธรรมดา	
TN2IK-I1A,1B	450.-
TN2IT-I1C	470.-
TN2IT-I1AB	550.-

ชนิดหลอด นีออน	
TN2IK-N1A,1B	450.-
TN2IK-N1C	470.-
TN2IK-N1AB	550.-
ชนิดหลอด LED	
TN2IK-L1A,1B (R,O,G,W,BL)	525.-
TN2IK-L1C (R,O,G,W,BL)	545.-
TN2IK-L1AB (R,O,G,W,BL)	625.-

TN3IK สวิตช์กดหัวเห็ดมีแลมป์กดล็อค 30 มม.



ชนิดหลอดธรรมดา	
TN3IK-I1A,1B	465.-
TN3IT-I1C	485.-
TN3IT-I1AB	565.-

ชนิดหลอด นีออน	
TN3IK-N1A,1B	460.-
TN3IK-N1C	480.-
TN3IK-N1AB	560.-
ชนิดหลอด LED	
TN3IK-L1A,1B (R,O,G,W,BL)	535.-
TN3IK-L1C (R,O,G,W,BL)	555.-
TN3IK-L1AB (R,O,G,W,BL)	635.-

TN2IT สวิตช์กดปิด-เปิดมีแลมป์ 22/25 มม. (ยกเว้นรุ่นนี้เป็น IP40)



TN2IT-I1AB	625.-
TN2IT-N1AB	635.-
TN2IT-L1AB (R,O,G,W,BL)	695.-

TN3IT สวิตช์กดปิด-เปิดมีแลมป์ 30 มม. (ยกเว้นรุ่นนี้เป็น IP40)



TN3IT-I1AB	635.-
TN3IT-N1AB	645.-
TN3IT-L1AB (R,O,G,W,BL)	705.-

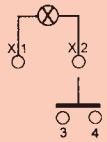
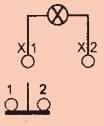
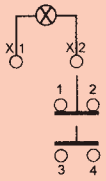
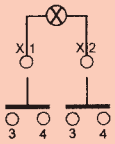
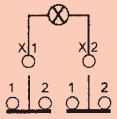
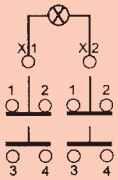
TN2-BTW ฝาครอบกันน้ำ 135.-

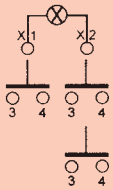
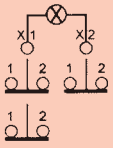
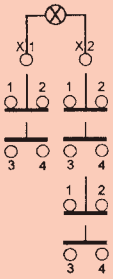
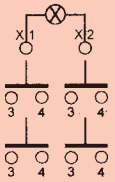
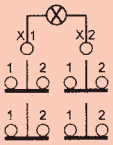
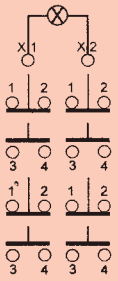
Waterproof cap for twin touch push button switch for T2BTL, T3BTL

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH
สวิตช์กดมีแลมป์
Ø22 / Ø25 / Ø30

ILLUMINATED PUSH BUTTON (DIRECT POWER) CONTACT BLOCKS

Type	TN2-I1A	TN2-I1B	TN2-I1C	TN2-I2A	TN2-I2B	TN2-I2C
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

Type	TN2-I3A	TN2-I3B	TN2-I3C	TN2-I4A	TN2-I4B	TN2-I4C
Contact	3a	3b	3a3b	4a	4b	4a4b
Contact arrangement						

tend ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดหม้อแปลง IP65

Ø22 / Ø25 / Ø30

This series of switches come with transformers at the secondary voltage of 5V and (6V) incandescent used.

MODEL DESIGNATION

TN2 TF 1 R - 1 A
1 2 3 4 5 6

Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	TF	Flat head
	TL	Long head
	TM	Mushroom head
	TA	Long head (Alternate)
	TK	Push-Lock
	TT	Twin-Touch

Designation	Signal	Description
3.Voltage	1	110V AC
	2	220V AC
	3	380V AC
	4	440V AC
4.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
5.No. of contact fitted	1	1
	2	2
6.Type of contact block fitted	A	1a(1NO)
	B	1b(1NC)
	C	1a1b(1NO 1NC)
	AB	1a+1b(1NO 1NC)

OPERATING HEAD DIMENSIONS

TN2TF สวิตช์กดหัวเรียบมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



TN2TF-1A,1B	520.-
TN2TF-1AB	620.-
TN2TF-1C	560.-

TN3TF สวิตช์กดหัวเรียบมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.



TN3TF-1A,1B	530.-
TN3TF-1AB	630.-
TN3TF-1C	570.-

TN2TL สวิตช์กดหัวนูนมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



TN2TL-1A,1B	510.-
TN2TL-1AB	610.-
TN2TL-1C	550.-

TN3TL สวิตช์กดหัวนูนมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.



TN3TL-1A,1B	520.-
TN3TL-1AB	620.-
TN3TL-1C	560.-

TN2TM สวิตช์กดหัวเห็ดมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



TN2TM-1A,1B	520.-
TN2TM-1AB	620.-
TN2TM-1C	560.-

TN3TM สวิตช์กดหัวเห็ดมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.



TN3TM-1A,1B	530.-
TN3TM-1AB	630.-
TN3TM-1C	570.-

TN2TA สวิตช์กดหัวนูนกดจมมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



TN2TA-1A,1B	650.-
TN2TA-1AB	750.-
TN2TA-1C	690.-

TN3TA สวิตช์กดหัวนูนกดจมมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.



TN3TA-1A,1B	665.-
TN3TA-1AB	765.-
TN3TA-1C	705.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ILLUMINATED PUSH BUTTON SWITCH

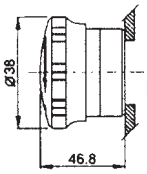
สวิตช์กดมีแลมป์ ชนิดหม้อแปลง IP65

Ø22 / Ø25 / Ø30

TN2TK สวิตช์กดมีแลมป์หัวเห็ดกดล็อค ชนิดใช้หม้อแปลง 22/25 มม.



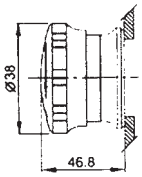
TN2TK-1A,1B	590.-
TN2TK-1AB	690.-
TN2TK-1C	630.-



TN3TK สวิตช์กดมีแลมป์หัวเห็ดกดล็อค ชนิดใช้หม้อแปลง 30 มม.



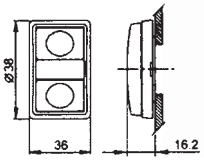
TN3TK-1A,1B	605.-
TN3TK-1AB	705.-
TN3TK-1C	645.-



TN2TT สวิตช์กดปิด-เปิดมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



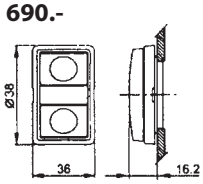
TN2TT-1AB	740.-
TN2TT-1C	680.-



TN3TT สวิตช์กดปิด-เปิดมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.



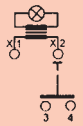
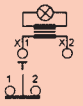
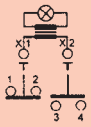
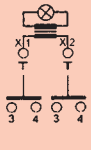
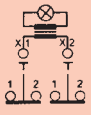
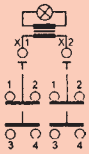
TN3TT-1AB	750.-
TN3TT-1C	690.-



TN2-BTW ฝาครอบกันน้ำ 135.-

Waterproof cap for twin touch push button switch for TN2TT, TN3TT

ILLUMINATED PUSH BUTTON CONTACT BLOCKS (with Transformer) DIMENSION

Type	TN2-T1A	TN2-T1B	TN2-T1AB	TN2-T2A	TN2-T2B	TN2-T2C
Contact	1a	1b	1a+1b	2a	2b	2a2b
Contact arrangement						

SELECTOR SWITCH (TN2 Ø22/ Ø25/ Ø30)

The contact block of this series of switches is standard 2 Positions contact block arrange, 1C contact block arrangement for 2 Positions is 1a1b, 1C contact block arrangement for 3 Positions is 1a 0 1a (2a)

สวิตช์ลูกศรต่อตรง ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น IP65 IEC144

MODEL DESIGNATION

TN2 SS 1 1 R - 1 A

1 2 3 4 5 6 7

Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	SS	Knob Operator
	SH	Lever Operator
	KS	Key Operator
3.Positions	1	90˚x 2 3 Position
	2	90˚x 2 Position
	3	90˚x 2 Position Spring return from right
	4	45˚x 2 3 Position
	5	45˚x 2 3 Position Spring return from right
	6	45˚x 2 3 Position Spring return from left
	7	45˚x 2 3 Position 2 Way Spring return

Designation	Signal		Description
4.Key withdrawable	1	2 Positions	0.1 Key with-drawable
	2		0 Key with-drawable
	3		1 Key with-drawable
	4	3 Positions	0.1.2 Key with-drawable
	5		0 Key with-drawable
	6	3 Positions	0.1.2 Key with-drawable
	7		0 Key with-drawable
5.Lens color	R		Red
	G		Green
	B		Black
6.NO. of contacts fitted	1		1
	2		2
	3		3
	4		4

7.Type of contacts block fitted		2-Positions	3-Positions
	A	1a(1NO)	-
	B	1b(1NC)	-
	C	1a1b(1NO 1NC)	1a 0 1a (2a)
	AB	1a+1b(1NO 1NC)	1a+1b

tend SELECTOR SWITCH

สวิตช์ลูกศร ชนิดต่อตรง IP65 IEC144

Ø22 / Ø25 / Ø30

OPERATING HEAD DIMENSIONS

TN2SS สวิตช์ลูกศร 22/25 มม.



TN2SS-1A,1B	220.-
TN2SS-1C	240.-
TN2SS-2A,2B	320.-
TN2SS-1AB	320.-
TN2SS-2C	360.-
TN2SS-4A	520.-

TN3SS สวิตช์ลูกศร 30 มม.



TN3SS-1A,1B	235.-
TN3SS-1C	255.-
TN3SS-2A,2B	335.-
TN3SS-1AB	335.-
TN3SS-2C	375.-
TN3SS-4A	535.-

TN2SH สวิตช์ลูกศรก้านยาว 22/25 มม.



TN2SH-1A,1B	230.-
TN2SH-1C	250.-
TN2SH-2A,2B	330.-
TN2SH-1AB	330.-
TN2SH-2C	370.-
TN2SH-4A	530.-

TN3SH สวิตช์ลูกศรก้านยาว 30 มม.



TN3SH-1A,1B	240.-
TN3SH-1C	260.-
TN3SH-2A,2B	340.-
TN3SH-1AB	340.-
TN3SH-2C	380.-
TN3SH-4A	540.-

TN2KS สวิตช์กุญแจ 22/25 มม.



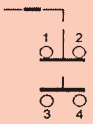
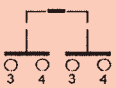
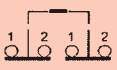
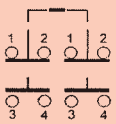
TN2KS-1A,1B	620.-
TN2KS-1C	640.-
TN2KS-2A,2B	720.-
TN2KS-1AB	720.-
TN2KS-2C	760.-
TN2KS-4A	920.-

TN3KS สวิตช์กุญแจ 30 มม.



TN3KS-1A,1B	635.-
TN3KS-1C	655.-
TN3KS-2A,2B	735.-
TN3KS-1AB	735.-
TN3KS-2C	775.-
TN3KS-4A	935.-

SELECTOR SWITCH 2 - POSITIONS CONTACT ARRANGEMENT

Type	TN2-1A	TN2-1B	TN2-1C	TN2-2A	TN2-2B	TN2-2C
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

Contact	0	1
3-4		X

Contact	0	1
1-2	X	

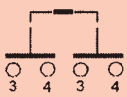
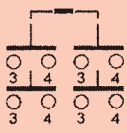
Contact	0	1
1-2	X	
3-4		X

Contact	0	1
3-4		X
3-4		X

Contact	0	1
1-2	X	
1-2	X	

Contact	0	1
1-2	X	
3-4		X
1-2	X	
3-4		X

SELECTOR SWITCH 3 - POSITIONS CONTACT ARRANGEMENT

Type	TN2-2A	TN2-4A
Contact	1a 0 1a	2a 0 2a
Contact arrangement		

Contact	1	0	2
3-4	X		
3-4			X

Contact	1	0	2
3-4	X		
3-4	X		
3-4			X
3-4			X

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH

สวิตช์ลูกศรมีแลมป์ ชนิดต่อตรง IP65

Ø22 / Ø25 / Ø30

The contacy black used in this type of switch is a direcy contact block type. The type and specification of bulb used are the same as those for direct type illuminated push button switch.

MODEL DESIGNASION

TN2 IS 1 1 R - N 1 A

1 2 3 4 5 6 7 8

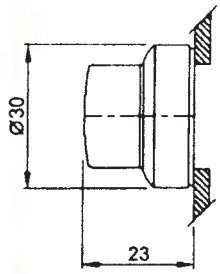
Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	IS	Knob Operator
	IH	Lever Operator
3.Positions	1	 90˚x 2 3 Position
	2	 90˚x 2 Position
	3	 90˚x 2 Position Spring return from right
	4	 45˚x 2 3 Position
	5	 45˚x 2 3 Position Spring return from right
	6	 45˚x 2 3 Position Spring return from left
	7	 45˚x 2 3 Position 2 Way Spring return

Designation	Signal	Description	
4.Key withdrawable	1	110V AC (Neon LED bulb)	
	2	220V AC (Neon LED bulb)	
	3	380V AC (Neon bulb)	
	4	440V AC (Neon bulb)	
	5	6V AC/DC (Incandescent LED bulb)	
	6	18V AC/DC (Incandescent)	
	7	24V AC/DC (Incandescent LED bulb)	
	8	30V AC/DC (Incandescent LED bulb)	
	9	12V AC/DC (Incandescent LED bulb)	
5.Lens color	R	Red	
	G	Green	
	O	Orange	
	W	White	
	B	Blue	
6.Lamp	I	Incandescent	
	N	Neon Bulb	
	L	LED Bulb	
7.NO. of contacts fitted	1	1	
	2	2	
	3	3	
	4	4	
8.Type of contact block fitted		2-Positions	3-Positions
	A	1a(1NO)	-
	B	1b(1NC)	-
	C	1a1b(1NO 1NC)	1a 0 1a
	AB	1a+1b(1NO 1NC)	-

OPERATING HEAD DIMENSIONS

TN2IS สวิตช์ลูกศรมีแลมป์ 22/25 มม.





ชนิดหลอดธรรมดา

TN2IS-I1A,1B	365.-
TN2IS-I1C	385.-
TN2IS-I2A	465.-
TN2IS-I1AB	465.-

ชนิดหลอดนีออน

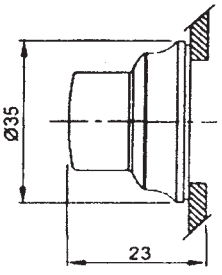
TN2IS-N1A,1B	395.-
TN2IS-N1C	415.-
TN2IS-N2A	495.-
TN2IS-N1AB	495.-

ชนิดหลอด LED

TN2IS-L1A,1B (R,O,G,W,BL)	455.-
TN2IS-L1C (R,O,G,W,BL)	475.-
TN2IS-L2A (R,O,G,W,BL)	555.-
TN2IS-L1AB (R,O,G,W,BL)	555.-

TN3IS สวิตช์ลูกศรมีแลมป์ 30 มม.





ชนิดหลอดธรรมดา

TN3IS-I1A,1B	375.-
TN3IS-I1C	395.-
TN3IS-I2A	475.-
TN3IS-I1AB	475.-

ชนิดหลอดนีออน

TN3IS-N1A,1B	405.-
TN3IS-N1C	425.-
TN3IS-N2A	505.-
TN3IS-N1AB	505.-

ชนิดหลอด LED

TN3IS-L1A,1B (R,O,G,W,BL)	465.-
TN3IS-L1C (R,O,G,W,BL)	485.-
TN3IS-L2A (R,O,G,W,BL)	565.-
TN3IS-L1AB (R,O,G,W,BL)	565.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

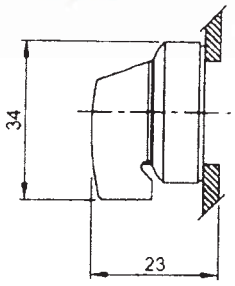
tend

ILLUMINATED PUSH BUTTON SWITCH
สวิตช์ลูกศรมีแลมป์ ชนิดต่อตรง IP65
Ø22 / Ø25 / Ø30

OPERATING HEAD DIMENSIONS

TN2IH สวิตช์ลูกศรก้านยาวมีแลมป์ 22/25 มม.





ชนิดหลอดธรรมดา

TN2IH-I1A,1B	395.-
TN2IH-I1C	415.-
TN2IH-I2A	495.-
TN2IH-I1AB	495.-

ชนิดหลอดนีออน

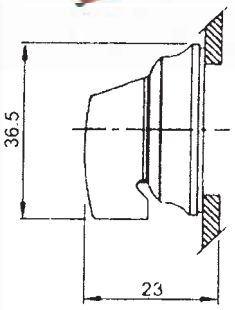
TN2IH-N1A,1B	410.-
TN2IH-N1C	430.-
TN2IH-N2A	510.-
TN2IH-N1AB	510.-

ชนิดหลอด LED

TN2IH-L1A,1B (R,O,G,W,BL)	460.-
TN2IH-L1C (R,O,G,W,BL)	480.-
TN2IH-L2A (R,O,G,W,BL)	560.-
TN2IH-L1AB (R,O,G,W,BL)	560.-

TN3IH สวิตช์ลูกศรก้านยาวมีแลมป์ 30 มม.





ชนิดหลอดธรรมดา

TN3IH-I1A,1B	405.-
TN3IH-I1C	425.-
TN3IH-I2A	505.-
TN3IH-I1AB	505.-

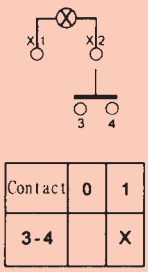
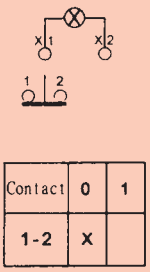
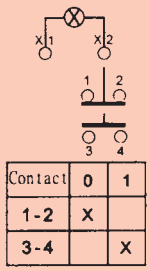
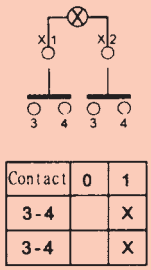
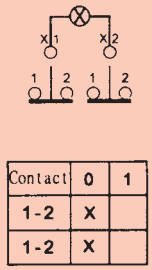
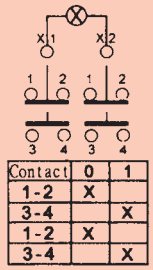
ชนิดหลอดนีออน

TN3IH-N1A,1B	420.-
TN3IH-N1C	440.-
TN3IH-N2A	520.-
TN3IH-N1AB	520.-

ชนิดหลอด LED

TN3IH-L1A,1B (R,O,G,W,BL)	470.-
TN3IH-L1C (R,O,G,W,BL)	490.-
TN3IH-L2A (R,O,G,W,BL)	570.-
TN3IH-L1AB (R,O,G,W,BL)	570.-

ILLUMINATED SELECTOR SWITCH (DIRECT POWER) 2 - POSITIONS CONTACT ARRANGEMENT

Type	TN2-I1A	TN2-I1B	TN2-I1C	TN2-I2A	TN2-I2B	TN2-I2C
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

Contact	0	1
3-4		X

Contact	0	1
1-2	X	

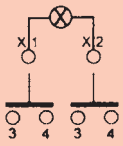
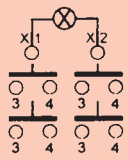
Contact	0	1
1-2	X	
3-4		X

Contact	0	1
3-4		X
3-4		X

Contact	0	1
1-2	X	
1-2	X	

Contact	0	1
1-2	X	
3-4		X
1-2	X	
3-4		X

ILLUMINATED SELECTOR SWITCH (DIRECT POWER) 3 - POSITIONS CONTACT ARRANGEMENT

Type	TN2-I2A	TN2-I4A
Contact	1a 0 1a	2a 0 2a
Contact arrangement		

Contact	1	0	2
3-4	X		
3-4			X

Contact	1	0	2
3-4	X		
3-4	X		
3-4			X
3-4			X

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED SELECTOR SWITCH

สวิตช์ลูกศรมีแลมป์ ชนิดหม้อแปลง IP65 IEC144

Ø22 / Ø25 / Ø30

The contact block of this series of switches is the tranformer type contact block. This series of switches come with transformers at secondary voltage of 5V and (6V) incandescent used.

MODEL DESIGNASION

TN2	TS	1	1	R	-	1	A
①	②	③	④	⑤		⑥	⑦

Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	TS	Knob Operator
	TH	Lever Operator
3.Positions	1	 90˚x 2 3 Position
	2	 90˚x 2 Position
	3	 90˚x 2 Position Spring return from right
	4	 45˚x 2 3 Position
	5	 45˚x 2 3 Position Spring return from right
	6	 45˚x 2 3 Position Spring return from left
	7	 45˚x 2 3 Position 2 Way Spring return

Designation	Signal	Description	
4.Voltage	1	110V AC (Neon LED Bulb)	
	2	220V AC (Neon LED Bulb)	
	3	380V AC (Neon Bulb)	
	4	440V AC (Neon Bulb)	
5.Lens color	R	Red	
	G	Green	
	O	Orange	
	W	White	
	BL	Blue	
6.No. of contacts fitted	1	1	
	2	2	
7.No. of contacts block fitted		2-Positions	3-Positions
	A	1a(1NO)	-
	B	1b(1NC)	-
	C	1a1b(1NO 1NC)	1a 0 1a
	AB	1a+1b(1NO 1NC)	-

OPERATING HEAD DIMENSIONS

TN2TS สวิตช์ลูกศรมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



TN2TS-1A, 1B	525.-
TN2TS-2A	625.-
TN2TS-1AB	625.-

TN3TS สวิตช์ลูกศรมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.



TN3TS-1A, 1B	535.-
TN3TS-2A	635.-
TN3TS-1AB	635.-

TN2TH สวิตช์ลูกศรก้านยาวมีแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.



TN2TH-1A, 1B	535.-
TN2TH-2A	635.-
TN2TH-1AB	635.-

TN3TH สวิตช์ลูกศรก้านยาวมีแลมป์ ชนิดใช้หม้อแปลง 30 มม.

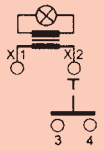
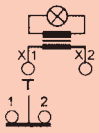
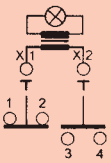
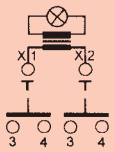
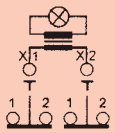
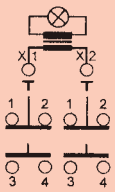


TN3TH-1A, 1B	545.-
TN3TH-2A	645.-
TN3TH-1AB	645.-

tend ILLUMINATED SELECTOR SWITCH

Ø22 / Ø25 / Ø30

ILLUMINATED SELECTOR SWITCH (TRANSFORMER) 2 - POSITIONS CONTACT ARRANGEMENT

Type	TN2-T1A	TN2-T1B	TN2-T1AB	TN2-T2A	TN2-T2B	TN2-T2C
Contact	1a	1b	1a + 1b	2a	2b	2a2b
Contact arrangement						

Contact	0	1
3-4		X

Contact	0	1
1-2	X	

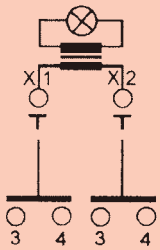
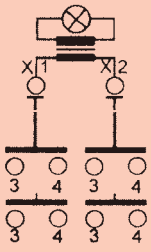
Contact	1	1
1-2	X	
3-4		X

Contact	0	1
3-4		X
3-4		X

Contact	0	1
1-2	X	
1-2	X	

Contact	0	1
1-2	X	
3-4		X
1-2	X	
3-4		X

ILLUMINATED SELECTOR SWITCH (TRANSFORMER) 3 - POSITIONS CONTACT ARRANGEMENT

Type	TN2-2A	TN2-4A
Contact	1a 0 1a	2a 0 2a
Contact arrangement		

Contact	1	0	2
3-4	X		
3-4			X

Contact	1	0	2
3-4	X		
3-4	X		
3-4			X
3-4			X

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend PILOT LAMP
ไพล็อตแลมป์ ชนิดต่อตรง IP65
Ø22 / Ø25 / Ø30

The series of bulbs used are same as those for direct type illuminated push botton switch.

MODEL DESIGNASION

TN2 P 1 R N
1 2 3 4 5

Designation	Signal	Description
1. Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2. Type	P	Direct Power
	L	Simple (Screw Terminal in the rear)
	N	Simple (Screw Terminal in the side)
	D	Big LED

Designation	Signal	Description
3.Voltage	1	110V AC (Neon LED Bulb)
	2	220V AC (Neon LED Bulb)
	3	380V AC (Neon Bulb)
	4	440V AC (Neon Bulb)
	5	6V AC/ DC (Incandescent LED bulb)
	6	18V AC/ DC (Incandescent)
	7	24V AC/ DC (Incandescent LED bulb)
	8	30V AC/ DC (Incandescent LED bulb)
	9	12V AC/ DC (Incandescent)
4.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	B	Blue
5.Lamp	I	Incandescent
	N	Neon bulb
	L	LED bulb

PILOT LAMP (DIRECT POWER) DIMENSIONS

TN2P ไพล็อตแลมป์ ชนิดต่อตรง 22/25 มม.



TN2PI	185.-	หลอดธรรมดา
TN2PN	210.-	หลอดนีออน
TN2PL (R,O,G,W,BL)	255.-	หลอด LED

TN3P ไพล็อตแลมป์ ชนิดต่อตรง 30 มม.



TN3PI	205.-	หลอดธรรมดา
TN3PN	230.-	หลอดนีออน
TN3PL (R,O,G,W,BL)	285.-	หลอด LED

TN2L ไพล็อตแลมป์ ชนิดต่อตรง 22/25 มม.



TN2LI	120.-	หลอดธรรมดา
TN2LN	135.-	หลอดนีออน
TN2LL (R,O,G,W,BL)	150.-	หลอด LED

TN3L ไพล็อตแลมป์ ชนิดต่อตรง 30 มม.



TN3LI	135.-	หลอดธรรมดา
TN3LN	150.-	หลอดนีออน
TN3LL (R,O,G,W,BL)	165.-	หลอด LED

TN2N ไพล็อตแลมป์ ชนิดต่อตรง 22/25 มม.



TN2NI	120.-	หลอดธรรมดา
TN2NN	135.-	หลอดนีออน
TN2NL (R,O,G,W,BL)	150.-	หลอด LED

TN3N ไพล็อตแลมป์ ชนิดต่อตรง 30 มม.



TN3NI	135.-	หลอดธรรมดา
TN3NN	150.-	หลอดนีออน
TN3NL (R,O,G,W,BL)	160.-	หลอด LED

TN2D ไพล็อตแลมป์ ชนิดต่อตรง 22/25 มม.



TN2DL (R,O,G,W,BL)	110.-	หลอด LED

TN3D ไพล็อตแลมป์ ชนิดต่อตรง 30 มม.

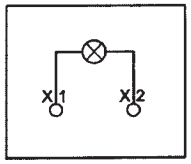


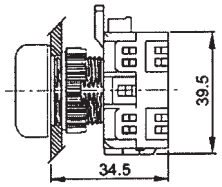
TN3DL (R,O,G,W,BL)	120.-	หลอด LED

LAMP HOLDER BLOCKS (DIRECT POWER) คอนแทคบ๊อก ไพล็อตแลมป์ ชนิดต่อตรง

TNPS-1 **175.-**







*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

PILOT LAMP / JOY STICK

ไพล็อตแลมป์ ชนิดหม้อแปลง / สวิตช์เกียร์โยก IP65

Ø22 / Ø25 / Ø30

The series of pilot lamp are equipped with transformer at the secondary voltage of 5V and (6V) bulb used.

MODEL DESIGNASION

TN2 TP 1 R

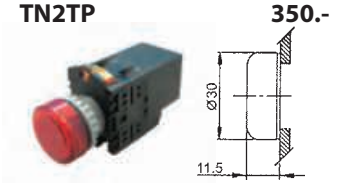
1 2 3 4

Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	TP	with transfoemer

Designation	Signal	Description
3.Voltage	1	110V/ 5V AC
	2	220V/ 5V AC
	3	380V/ 5V AC
	4	440V/ 5V AC
4.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue

PILOT LAMP DIMENSIONS

TN2TP **350.-**



ไพล็อตแลมป์ ชนิดใช้หม้อแปลง 22/25 มม.

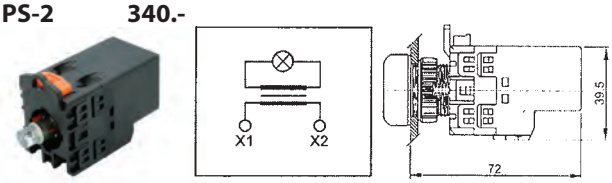
TN3TP **365.-**



ไพล็อตแลมป์ ชนิดใช้หม้อแปลง 30 มม.

LAMP HOLDER BLOCKS (WITH TRANSFORMER)

TNPS-2 **340.-**



คอนแทคบ๊อก ไพล็อตแลมป์ ชนิดใช้หม้อแปลง

JOY STICK (TN2 Ø22 / Ø25 / Ø30)

MODEL DESIGNASION

TN2 MR 2 L - 2

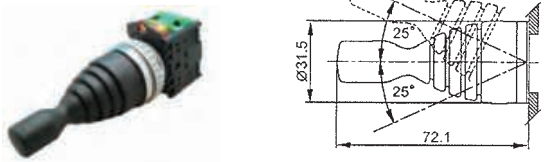
1 2 3 4 5

The contact block joystick will have printed marking UDLR for up, down, left, right direction.The contact block is only for joystick and can not be used in any other type of switches.

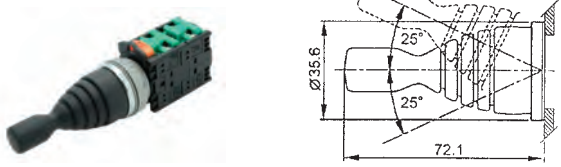
Designation	Signal	Description
1.Mounting hole	TN2	Ø22 mm / Ø25 mm
	TN3	Ø30 mm
2.Type	MR	Joystick
3.Direct	2	Up & down 2 directions up, down.
	4	Left & right 4 directions
4.Movement way	L	Retain
	R	Revert
5.No. of contact block	2	1a at up & down each
	4	2a at up & down or 1a at up,down, left,right
	8	2a at up & down,left & right

JOY STICK DIMENSIONS

TN2MR2 สวิตช์เกียร์โยก 22/26 มม.



TN3MR4 สวิตช์เกียร์โยก 30 มม.



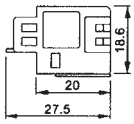
Type	Description	Price
TN2MR2L2	สวิตช์เกียร์โยก 2 ทิศทาง 22 มม.	2,050.-
TN2MR4L4	สวิตช์เกียร์โยก 4 ทิศทาง 22 มม.	2,270.-
TN2MR2R2	สวิตช์เกียร์โยก 2 ทิศทาง เด้งกลับเอง 22 มม.	2,055.-
TN2MR4R4	สวิตช์เกียร์โยก 4 ทิศทาง เด้งกลับเอง 22 มม.	2,270.-
TN2MR2L4	สวิตช์เกียร์โยก 2a ขึ้น-ลง	2,270.-
TN2MR2R4	สวิตช์เกียร์โยก 2a ขึ้น-ลง	2,270.-
TN2MR4L8	สวิตช์เกียร์โยก 4 ทิศทาง 2a ขึ้น-ลง	2,700.-
TN2MR4R8	สวิตช์เกียร์โยก 4 ทิศทาง 2a ขึ้น-ลง	2,700.-
TN3MR2L2	สวิตช์เกียร์โยก 2 ทิศทาง 30 มม.	2,065.-
TN3MR4L4	สวิตช์เกียร์โยก 4 ทิศทาง 30 มม.	2,295.-
TN3MR2R2	สวิตช์เกียร์โยก 2 ทิศทาง เด้งกลับเอง 30 มม.	2,065.-
TN3MR4R4	สวิตช์เกียร์โยก 4 ทิศทาง เด้งกลับเอง 30 มม.	2,295.-
TN3MR2L4	สวิตช์เกียร์โยก 2a ขึ้น-ลง	2,295.-
TN3MR2R4	สวิตช์เกียร์โยก 2a ขึ้น-ลง	2,295.-
TN3MR4L8	สวิตช์เกียร์โยก 4 ทิศทาง 2a ขึ้น-ลง	2,725.-
TN3MR4R8	สวิตช์เกียร์โยก 4 ทิศทาง 2a ขึ้น-ลง	2,725.-

tend INSULATED ENCLOSURE
บ๊อกพลาสติก
Ø22 / Ø30

The mounting holes of this series of insulated enclosures are ø22 mm. Single-hole insulated enclosures are available in yellow and gray. All the others are in gray, the upper base and contact block are of exclusive type, which is different from those of ø22/ø30 series control components. The dimension and type of the upper base are same as those of ø22/ø30 series control components.

TN2-BA (TN2-B1A) 135.-

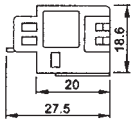




คอนแทคบ๊อกสวิตช์กด 1A (1NO) สำหรับใช้กับบ๊อกพลาสติก

TN2-BB (TN2-B1B) 135.-

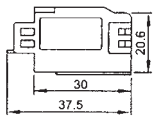




คอนแทคบ๊อกสวิตช์กด 1B (1NC) สำหรับใช้กับบ๊อกพลาสติก

TN2-BC (TN2-B1C) 1NO, 1NC 165.-





คอนแทคบ๊อกสวิตช์กด 1C (1NO,1NC) สำหรับใช้กับบ๊อกพลาสติก

THE ASSEMBLY OF INSULATED ENCLOURES AND SWITCH

1. Take apart the upper cover and the lower base of the insulated enclosure.
2. Fix the contact block on the lower base, and the upper base on the upper cover. (standard contact block needs underneath packing)
3. Connect the upper cover with the lower base into one kit.
   - The protection structure for this series of insulated enclosures is IP65 (IBC144).
   - All the illuminated switches used in the insulated enclosures are direct type.



NO 2TN2B104



NO 2TN2B105

ฐานเสริมสำหรับคอนแทคบ๊อก (ใช้กับบ๊อกพลาสติก)

NO 2TN2B104
สำหรับสวิตช์กดรุ่น TN ราคา 30 บาท

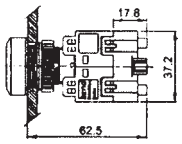
NO 2TN2B105
สำหรับสวิตช์กดรุ่น T2
ใช้กับบ๊อกรุ่น TN2 ราคา 25 บาท

STANDARD CONTACT BLOCK FOR INSULATED ENCLOSURES

TN2-B1ab/ TN2-B2a คอนแทคบ๊อกสวิตช์กดสำหรับใช้กับบ๊อกพลาสติก



TN2-B1ab (1NO+1NC)	265.-
TN2-B2a (2NO)	250.-
TN2-B2b (2NC)	250.-
TN2-B2c (2NO+2NC)	310.-

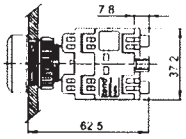


ILLUMINATED CONTACT BLOCK FOR INSULATED ENCLOSURES

TN2-BI1ab/ TN2-BI2a คอนแทคบ๊อกสวิตช์กดชนิดมีแลมป์สำหรับใช้กับบ๊อกพลาสติก



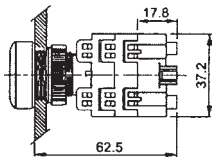
TN2-BI1ab (1NO+1NC)	405.-
TN2-BI2a (2NO)	400.-
TN2-BI2b (2NC)	400.-
TN2-BI1a (1NO)	305.-
TN2-BI1b (1NC)	305.-
TN2-BI1c (1NO, 1NC)	335.-
TN2-BI2c (2NO, 2NC)	450.-



LAMP HOLDER BLOCKS (FOR INSULATED ENCLOSURES)

TNPS-3 คอนแทคบ๊อกไพล็อตแลมป์สำหรับใช้กับบ๊อกพลาสติก 150.-



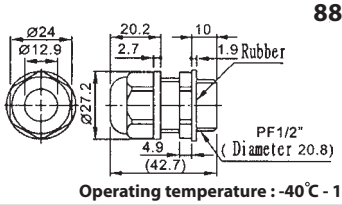


SERIES CABLE GLAND เคเบิ้ลแกลน

HPF-12 (TG-20) 88.-



Diameter of cables
: Ø7 - Ø12.5



Operating temperature : -40℃ - 100℃

INSULATED ENCLOSURES DIMENTIONS TN2 : Ø22 mm TN3 : Ø30 mm บ๊อกพลาสติก

TN2-B1 235.- 22 มม. 1 ช่อง	**TN2-B2** 330.- 22 มม. 2 ช่อง	**TN2-B3** 460.- 22 มม. 3 ช่อง	**TN2-B4** 495.- 22 มม. 4 ช่อง	**TN2-B5** 675.- 22 มม. 5 ช่อง
TN3-B1 235.- 30 มม. 1 ช่อง	**TN3-B2** 330.- 30 มม. 2 ช่อง	**TN3-B3** 460.- 30 มม. 3 ช่อง	**TN3-B4** 495.- 30 มม. 4 ช่อง	**TN3-B5** 675.- 30 มม. 5 ช่อง

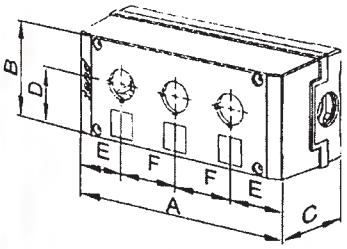


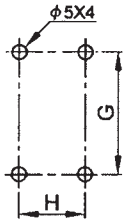












Type	A	B	C	D	E	F	G	H
TN2-B1 TN3-B1	82	75	67.3	43.5	41	-	63	54
TN2-B2 TN3-B2	127	75	67.3	43.5	41	45	108	54
TN2-B3 TN3-B3	172	75	67.3	43.5	41	45	153	54
TN2-B4 TN3-B4	217	75	67.3	43.5	41	45	198	54
TN2-B5 TN3-B5	262	75	67.3	43.5	41	45	243	54

tend CONTROL STATION
กล่องคอนโทรล
Ø22 / Ø30

- The mounting hole of this series of insulated enclosures is 22. The illuminated push button and pilot lamp are all direct type.
- The insulated enclosures of mushroom-head and chain type push button are in yellow or gray. Others in gray.

ONE BUTTON MODEL DESIGNATION

TNB1 BF R 1 2 N
1 2 3 4 5 6

Designation	Signal	Description
1.NO. of button	TNB1	1 Button
2.Type	BF	Flat Head Push Button
	BL	Long Head Push Button
	BM	Mushroom Head Push Button
	BK	Push-Lock Push Button
	IF	Flat Head Illuminated Push Button
	IL	Long Head Illuminated Push Button
	IM	Mushroom Head Illuminated Push Button
	IK	Push-Lock Illuminated Push Button
	S2	Selector Switch (2 Positions)
	S3	Selector Switch (3 Positions)

Designation	Signal	Description
3.Lens color	R	Red
	G	Green
	B	Black
4.Name plate	1	OFF
	2	ON
	3	EM.STOP
	4	OFF - ON
	5	ON - OFF - ON
5.Voltage	1	110V AC
	2	220V AC
	3	380V AC
	4	440V AC
	5	6V AC/ DC
	6	18V AC/ DC
	7	24V AC/ DC
	8	30V AC/ DC
	9	12V AC/ DC
6.Bulb type	I	Incandescent
	N	Neon Bulb
	L	LED Bulb



สวิตช์กดหัวเรียบสีแดง
สวิตช์กดหัวเรียบสีแดงมีแลมป์



สวิตช์กดหัวเรียบสีเขียว
สวิตช์กดหัวเรียบสีเขียวมีแลมป์

Type	Description	Contact	Spec	Price
TN2B1-BFR1 1C	สวิตช์กดหัวเรียบสีแดง 22 มม.	1c	-	475.-
TN3B1-BFR1 1C	สวิตช์กดหัวเรียบสีแดง 30 มม.	1c	-	484.-
TN2B1-BFR1 1B	สวิตช์กดหัวเรียบสีแดง 22 มม.	1b	-	455.-
TN3B1-BFR1 1B	สวิตช์กดหัวเรียบสีแดง 30 มม.	1b	-	465.-
TN2B1-BFR1 2N1B	สวิตช์กดมีแลมป์หัวเรียบสีแดง 22 มม. 220V	1b	Neon	620.-
TN3B1-BFR1 2N1B	สวิตช์กดมีแลมป์หัวเรียบสีแดง 30 มม. 220V	1b	Neon	630.-
TN2B1-IFR11 TO 14	สวิตช์กดมีแลมป์หัวเรียบสีแดง 22 มม. 110,220,380,440V	1b	Neon	620.-
TN3B1-IFR11 TO 14	สวิตช์กดมีแลมป์หัวเรียบสีแดง 30 มม. 110,220,380,440V	1b	Neon	630.-
TN2B1-IFR15 TO 19	สวิตช์กดหัวเรียบสีแดง 22 มม. 6,12,18,24,30V	1b	Incandescent	600.-
TN3B1-IFR15 TO 19	สวิตช์กดหัวเรียบสีแดง 30 มม. 6,12,18,24,30V	1b	Incandescent	610.-

Type	Description	Contact	Spec	Price
TN2B1-BFG2 1C	สวิตช์กดหัวเรียบสีเขียว 22 มม.	1c	-	475.-
TN3B1-BFG2 1C	สวิตช์กดหัวเรียบสีเขียว 30 มม.	1c	-	484.-
TN2B1-BFG2 1A	สวิตช์กดหัวเรียบสีเขียว 22 มม.	1a	-	410.-
TN3B1-BFG2 1A	สวิตช์กดหัวเรียบสีเขียว 30 มม.	1a	-	465.-
TN2B1-IFG2 2N1A	สวิตช์กดมีแลมป์หัวเรียบสีเขียว 22 มม. 220V	1a	Neon	620.-
TN3B1-IFG2 2N1A	สวิตช์กดมีแลมป์หัวเรียบสีเขียว 30 มม. 220V	1a	Neon	630.-
TN2B1-IFG21 TO 24	สวิตช์กดมีแลมป์หัวเรียบสีเขียว 22 มม. 110,220,380,440V	1a	Neon	620.-
TN3B1-IFG21 TO 24	สวิตช์กดมีแลมป์หัวเรียบสีเขียว 30 มม. 110,220,380,440V	1a	Neon	630.-
TN2B1-IFG15 TO 29	สวิตช์กดหัวเรียบสีเขียว 22 มม. 6,12,18,24,30V	1a	Incandescent	600.-
TN3B1-IFG15 TO 29	สวิตช์กดหัวเรียบสีเขียว 30 มม. 6,12,18,24,30V	1a	Incandescent	610.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CONTROL STATION
กล่องคอนโทรล
Ø22 / Ø30



สวิตช์กดหัวนูนสีแดง
สวิตช์กดหัวนูนสีแดงมีแลมป์

Type	Description	Contact	Spec	Price
TN2B1-BLR1	สวิตช์กดหัวนูนสีแดง 22 มม.	1c	-	485.-
TN3B1-BLR1	สวิตช์กดหัวนูนสีแดง 30 มม.	1c	-	495.-
TN2B1-ILR11 to 14	สวิตช์กดมีแลมป์หัวนูนสีแดง 22 มม. 110,220,380,440V	1b	Neon	640.-
TN3B1-ILR11 to 14	สวิตช์กดมีแลมป์หัวนูนสีแดง 30 มม. 110,220,380,440V	1b	Neon	650.-
TN2B1-ILR15 to 19	สวิตช์กดมีแลมป์หัวนูนสีแดง 22 มม. 6,12,18,24,30V	1b	Incandescent	620.-
TN3B1-ILR15 to 19	สวิตช์กดมีแลมป์หัวนูนสีแดง 30 มม. 6,12,18,24,30V	1b	Incandescent	630.-



สวิตช์กดหัวนูนสีเขียว
สวิตช์กดหัวนูนสีเขียวมีแลมป์

Type	Description	Contact	Spec	Price
TN2B1-BLG2	สวิตช์กดหัวนูนสีเขียว 22 มม.	1c	-	485.-
TN3B1-BLG2	สวิตช์กดหัวนูนสีเขียว 30 มม.	1c	-	495.-
TN2B1-BLG2 1A	สวิตช์กดหัวนูนสีเขียว 22 มม.	1a	-	465.-
TN3B1-BLG2 1A	สวิตช์กดหัวนูนสีเขียว 30 มม.	1a	-	475.-
TN2B1-ILG21 to 24	สวิตช์กดมีแลมป์หัวนูนสีเขียว 22 มม. 110,220,380,440V	1a	Neon	640.-
TN3B1-ILG21 to 24	สวิตช์กดมีแลมป์หัวนูนสีเขียว 30 มม. 110,220,380,440V	1a	Neon	650.-
TN2B1-ILG25 to 29	สวิตช์กดมีแลมป์หัวนูนสีเขียว 22 มม. 6,12,18,24,30V	1a	Incandescent	620.-
TN3B1-ILG25 to 29	สวิตช์กดมีแลมป์หัวนูนสีเขียว 30 มม. 6,12,18,24,30V	1a	Incandescent	630.-



สวิตช์กดหัวเห็ดสีแดง
สวิตช์กดหัวเห็ดสีแดงมีแลมป์

Type	Description	Contact	Spec	Price
TN2B1-BMR3	สวิตช์กดหัวเห็ดสีแดง 22 มม.	1c	-	490.-
TN3B1-BMR3	สวิตช์กดหัวเห็ดสีแดง 30 มม.	1c	-	500.-
TN2B1-IMR3 2N1B	สวิตช์กดมีแลมป์หัวเห็ดสีแดง 22 มม. 220V	1b	Neon	670.-
TN3B1-IMR3 2N1B	สวิตช์กดมีแลมป์หัวเห็ดสีแดง 30 มม. 220V	1b	Neon	670.-
TN2B1-IMR31 to 34	สวิตช์กดมีแลมป์หัวเห็ดสีแดง 22 มม. 110,220,380,440V	1b	Neon	680.-
TN3B1-IMR31 to 34	สวิตช์กดมีแลมป์หัวเห็ดสีแดง 30 มม. 110,220,380,440V	1b	Neon	680.-
TN2B1-IMR35 to 39	สวิตช์กดมีแลมป์หัวเห็ดสีแดง 22 มม. 6,12,18,24,30V	1b	Incandescent	660.-
TN3B1-IMR35 to 39	สวิตช์กดมีแลมป์หัวเห็ดสีแดง 30 มม. 6,12,18,24,30V	1b	Incandescent	665.-



สวิตช์กดล็อคหัวเห็ดสีแดง
สวิตช์กดล็อคหัวเห็ดสีแดงมีแลมป์

Type	Description	Contact	Spec	Price
TN2B1-BKR3	สวิตช์กดล็อคหัวเห็ดสีแดง 22 มม.	1c	-	590.-
TN3B1-BKR3	สวิตช์กดล็อคหัวเห็ดสีแดง 30 มม.	1c	-	600.-
TN2B1-IKR3 2N1B	สวิตช์กดล็อคมีแลมป์หัวเห็ดสีแดง 22 มม. 220V	1b	Neon	740.-
TN3B1-IKR3 2N1B	สวิตช์กดล็อคมีแลมป์หัวเห็ดสีแดง 30 มม. 220V	1b	Neon	750.-
TN2B1-IKR31 to 34	สวิตช์กดล็อคมีแลมป์หัวเห็ดสีแดง 22 มม. 110,220,380,440V	1b	Neon	740.-
TN3B1-IKR31 to 34	สวิตช์กดล็อคมีแลมป์หัวเห็ดสีแดง 30 มม. 110,220,380,440V	1b	Neon	750.-
TN2B1-IKR35 to 39	สวิตช์กดล็อคมีแลมป์หัวเห็ดสีแดง 22 มม. 6,12,18,24,30V	1b	Incandescent	725.-
TN3B1-IKR35 to 39	สวิตช์กดล็อคมีแลมป์หัวเห็ดสีแดง 30 มม. 6,12,18,24,30V	1b	Incandescent	730.-



สวิตช์ลูกศร

Type	Description	Contact	Spec	Price
TN2B1-S2B4	สวิตช์ลูกศร ON - OFF 22 มม.	1c	-	520.-
TN3B1-S2B4	สวิตช์ลูกศร ON - OFF 30 มม.	1c	-	530.-



สวิตช์ลูกศร

Type	Description	Contact	Spec	Price
TN2B1-S3B5	สวิตช์ลูกศร ON - OFF - ON 22 มม.	2a	-	600.-
TN3B1-S3B5	สวิตช์ลูกศร ON - OFF - ON 30 มม.	2a	-	615.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CONTROL STATION
กล่องคอนโทรล
Ø22 / Ø30

TWO BUTTONS



สวิตช์กดหัวเรียบ
สวิตช์กดหัวเรียบมีแลมป์

Type	Description	Name plate	Buttons	Voltages	Contact	Spec	Price
TN2B2-BF	สวิตช์กดหัวเรียบ ON-OFF 22 มม.	ON - OFF	2 Flat Head Push Buttons	-	1c	-	805.-
TN3B2-BF	สวิตช์กดหัวเรียบ ON-OFF 30 มม.	ON - OFF	2 Flat Head Push Buttons	-	1c	-	825.-
TN2B2-IF2	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF 22 มม. 220V	ON - OFF	2 Flat Head Illuminated Push Buttons	220V AC	1a or 1b	Neon	1,100.-
TN3B2-IF2	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF 30 มม. 220V	ON - OFF	2 Flat Head Illuminated Push Buttons	220V AC	1a or 1b	Neon	1,125.-
TN2B2-IF7	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF 24 มม. 24V	ON - OFF	2 Flat Head Illuminated Push Buttons	24V	1a or 1b	Incandescent	1,080.-
TN3B2-IF7	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF 30 มม. 24V	ON - OFF	2 Flat Head Illuminated Push Buttons	24V	1a or 1b	Incandescent	1,125.-

THREE BUTTONS





สวิตช์กดหัวเรียบ
สวิตช์กดหัวเรียบมีแลมป์
สวิตช์กดหัวเรียบพร้อมไพล็อตแลมป์

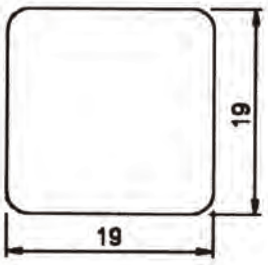
Type	Description	Name plate	Buttons	Contact	Spec	Price
TN2B3-BF	สวิตช์กดหัวเรียบ ON-OFF-ON 22 มม.	ON - OFF - ON	3 Flat Head Push Buttons	1c	-	1,155.-
TN3B3-BF	สวิตช์กดหัวเรียบ ON-OFF-ON 30 มม.	ON - OFF - ON	3 Flat Head Push Buttons	1c	-	1,200.-
TN2B3-IF2	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF-ON 22 มม. 220V	220 V ON - OFF - ON	3 Flat Head Illuminated Push Buttons	1a or 1b	Neon	1,630.-
TN3B3-IF2	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF-ON 30 มม. 220V	220 V ON - OFF - ON	3 Flat Head Illuminated Push Buttons	1a or 1b	Neon	1,665.-
TN2B3-IF7	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF-ON 24 มม. 24V	24 V ON - OFF - ON	3 Flat Head Illuminated Push Buttons	1a or 1b	Incandescent	1,585.-
TN3B3-IF7	สวิตช์กดมีแลมป์หัวเรียบ ON-OFF-ON 30 มม. 24V	24 V ON - OFF - ON	3 Flat Head Illuminated Push Buttons	1a or 1b	Incandescent	1,620.-
TN2B3-PF2	สวิตช์กดหัวเรียบพร้อมไพล็อตแลมป์ ON-OFF 22 มม. 220V	220 V ON - OFF	1 Pilot Lamp 2 Flat Head Push Buttons	1c	Neon	1,155.-
TN3B3-PF2	สวิตช์กดหัวเรียบพร้อมไพล็อตแลมป์ ON-OFF 30 มม. 220V	220 V ON - OFF	1 Pilot Lamp 2 Flat Head Push Buttons	1c	Neon	1,190.-
TN2B3-PF7	สวิตช์กดหัวเรียบพร้อมไพล็อตแลมป์ ON-OFF 22 มม. 24V	24 V ON - OFF	1 Pilot Lamp 2 Flat Head Push Buttons	1c	Incandescent	1,145.-
TN3B3-PF7	สวิตช์กดหัวเรียบพร้อมไพล็อตแลมป์ ON-OFF 30 มม. 24V	24 V ON - OFF	1 Pilot Lamp 2 Flat Head Push Buttons	1c	Incandescent	1,180.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

NAME PLATE
ป้ายชื่อ
Ø22 / Ø25 / Ø30

PLATES FOR ENCLOSURES

TBP



ราคาแผ่นละ 10 บาท

FOR ILLUMINATED PUSH BUTTON, PILOT LAMP

TBP-01	TBP-02	TBP-03	TBP-04	TBP-05	TBP-06	TBP-07	TBP-08	TBP-09	TBP-10
○	I	II	III	IV	ON	OFF	START	STOP	UP
TBP-11	**TBP-12**	**TBP-13**	**TBP-14**	**TBP-15**	**TBP-16**	**TBP-17**	**TBP-18**	**TBP-19**	**TBP-20**
DOWN	SOURCE	HAND	AUTO	RUN	FWD	REV	CLOSE	OPEN	FAST
TBP-21	**TBP-22**	**TBP-23**	**TBP-24**	**TBP-25**	**TBP-26**	**TBP-27**	**TBP-28**	**TBP-29**	**TBP-30**
SLOW	RESET	EM.STOP	12V	24V	30V	110V	220V	B	1
TBP-31	**TBP-32**	**TBP-33**	**TBP-34**	**TBP-35**	**TBP-36**	**TBP-37**	**TBP-38**	**TBP-39**	**TBP-40**
2	3	4	5	6	7	8	9	INCH	➡
TBP-41	**TBP-42**	**TBP-43**							
B1	B2	CLEAN							

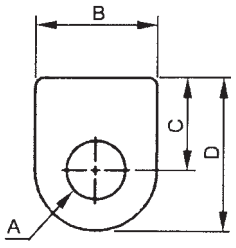
FOR SELECTOR SWITCH

TBP-51	TBP-52	TBP-53	TBP-54	TBP-55	TBP-56	TBP-57	TBP-58	TBP-59	TBP-60
				ON OFF	ON ON	ON OFF ON	REV FWD	REV OFF FWD	AUTO HAND
TBP-61	**TBP-62**	**TBP-63**	**TBP-64**	**TBP-65**	**TBP-66**	**TBP-67**			
AUTO OFF HAND	START STOP	UP DOWN	UP OFF DOWN	1 2	1 0 2	1 2 3			

tend NAME PLATE
ป้ายชื่อ
Ø22 / Ø25 / Ø30

Ø22 / Ø25 / Ø30 LEGEND PLATES FOR OPERATING DEVICES, ALUMINUM (M) OR ACRYLIC (P)

TN22P (Acrylic 22)	TN22M (22 Aluminum)	TN25P (Acrylic 25)	TN25M (25 Aluminum)	TN30P (Acrylic 30)	TN30M (30 Aluminum)



	A	B	C	D
TN22P	Ø22.3	41	32	52.5
TN22M	Ø22.2	31	27	42
TN25P	Ø25.5	41	32	52.5
TN25M	Ø24.9	31	27	42
TN30P	Ø30.5	41	32	52.5
TP30M	Ø30.3	38.5	32.5	52

(ตัวว่างเปล่า) อะคริลิค
ราคาแผ่นละ 19.-

TN 22P, 25P, 30P - 01 ถึง 74
(มีตัวหนังสือ) อะคริลิค
ราคาแผ่นละ 27.-

TN 22M, 25M, 30M
อลูมิเนียม
ราคาแผ่นละ 25.-

01	02	03	04	05	06	07	08	09	10	11	12
ON	OFF	START	STOP	UP	DOWN	SOURCE	MANUEL	AUTO	RUN	FWD	REV

13	14	15	16	17	18	19
OFF ON	ON ON	ON OFF ON	FWD REV	FWD OFF REV	AUTO MANU	AUTO OFF MANU

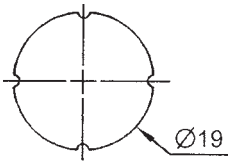
20	21	22
STOP START	MANU OFF AUTO	1 0 2

00
CLEAN

71	42	73	74
O I	I II	I O II	I II III

BUTTON PLATES FOR Ø22 / Ø25 / Ø30 OPERATING DEVICES

TPP



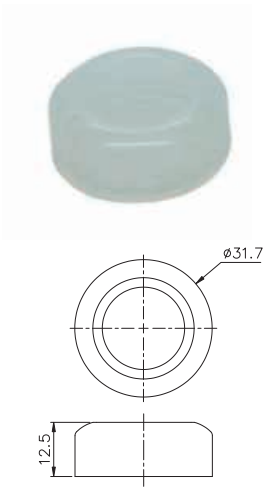
ราคาแผ่นละ 8 บาท

TPP-01	TPP-02	TPP-03	TPP-04	TPP-05	TPP-06	TPP-07	TPP-08	TPP-09	TPP-10	TPP-11
O	I	II	III	IV	ON	OFF	START	STOP	UP	DOWN
TPP-12	**TPP-13**	**TPP-14**	**TPP-15**	**TPP-16**	**TPP-17**	**TPP-18**	**TPP-19**	**TPP-20**	**TPP-21**	**TPP-22**
SOURCE	HAND	AUTO	RUN	FWD	REV	CLOSE	OPEN	FAST	SLOW	RESET
TPP-23	**TPP-24**	**TPP-25**	**TPP-26**	**TPP-27**	**TPP-28**	**TPP-29**	**TPP-30**	**TPP-31**	**TPP-32**	**TPP-33**
INCH	12V	24V	30V	110V	220V	B	1	2	3	4
TPP-34	**TPP-35**	**TPP-36**	**TPP-37**	**TPP-38**	**TPP-39**	**TPP-40**	**TPP-41**	**TPP-42**	**TPP-43**	
5	6	7	8	9	➡	B1	B2	B3	B4	

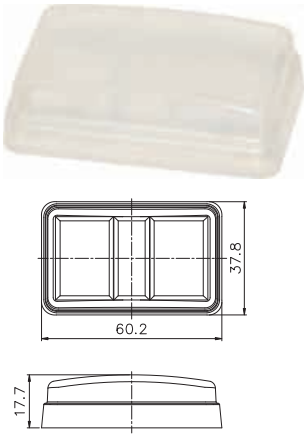
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ACCESSORIES
อุปกรณ์เสริม
Ø22 / Ø25 / Ø30

TN2-BFW (TN2-BF/IF) **75.-**
ฝาครอบกันน้ำใช้กับรุ่น TN2BF, TN2IF, T2BF, T2IF

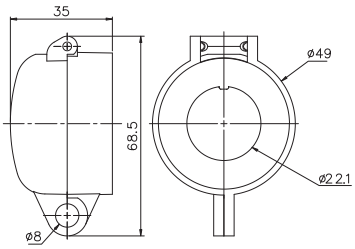


TN2-BTW (TN2-BT/IT) **135.-**
ฝาครอบกันน้ำใช้กับสวิตช์กด ON - OFF
รุ่น TN2BT, TN2IT, T2BT, T2IT



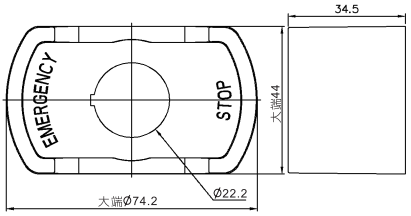
TN2GR ฝาครอบ ปิด-เปิด ได้ ใช้กับรุ่น TN2 และ T2 **180.-**
TN3GR ฝาครอบ ปิด-เปิด ได้ ใช้กับรุ่น TN3 และ T3 **200.-**





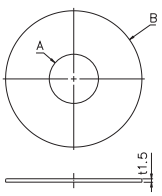
TN2-EA ไม่มีตัวหนังสือ **430.-**
TN3-EB มีตัวหนังสือ **430.-**
ใช้กับรุ่น TN2BK, TN2IK, TN2BK, T2IK





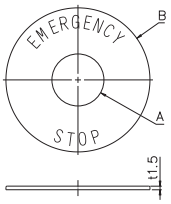
Ø22 / Ø25 / Ø30 แผ่นป้ายใช้กับสวิตช์กด ไพล็อตแลมป์

ชนิดไม่มีตัวหนังสือ



Model	-	A	B	Price
TN22E-01	22	Ø22	Ø60	55.-
TN25E-01	25	Ø25	Ø60	55.-
TN30E-01	30	Ø30	Ø60	55.-
TN22EL-01	22	Ø22	Ø90	75.-
TN25EL-01	25	Ø25	Ø90	75.-
TN30EL-01	30	Ø30	Ø90	75.-

ชนิดมีตัวหนังสือ



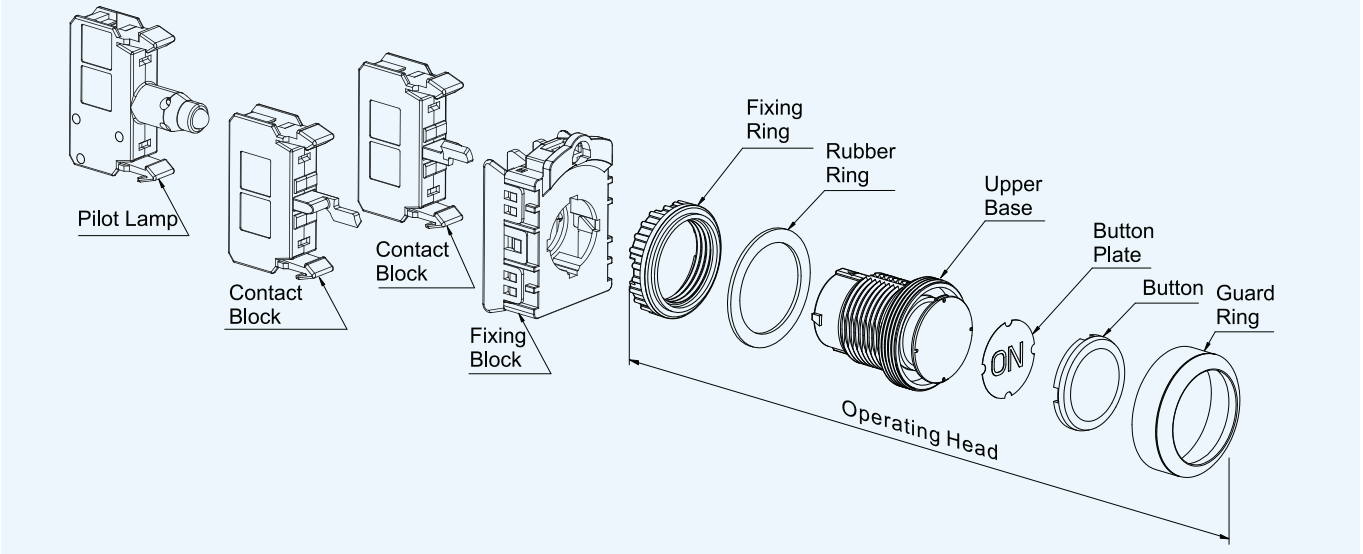
Model	-	A	B	Price
TN22E-02	22 (STOP)	Ø22	Ø60	55.-
TN25E-02	25 (STOP)	Ø25	Ø60	55.-
TN30E-02	30 (STOP)	Ø30	Ø60	55.-
TN22EL-02	22 (STOP)	Ø22	Ø90	75.-
TN25EL-02	25 (STOP)	Ø25	Ø90	75.-
TN30EL-02	30 (STOP)	Ø30	Ø90	75.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend TT2 Ø22/Ø25/Ø30 SERIES CONTROL COMPONENTS TT2

The operating head and contact block of TT2 series are detachable. The protection structure for this series is IP65(ICE144) for waterproof, oil ting and bust proof in harsh environment except Twin-Touch push button and illuminated push button switches are IP40.

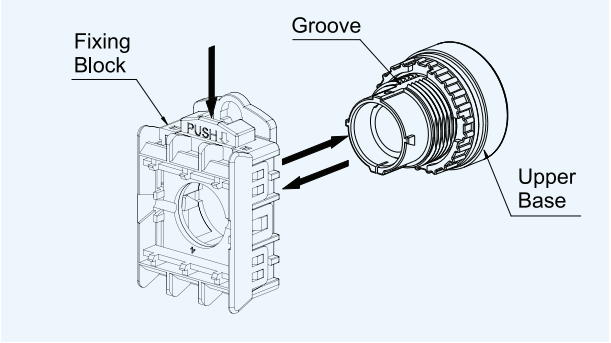
CONFIGURATION OF SWITCHES



FEATURES

TT2 series switches are detachable in 3 sub-assembly.It consists of upper base, fixing block and contact block

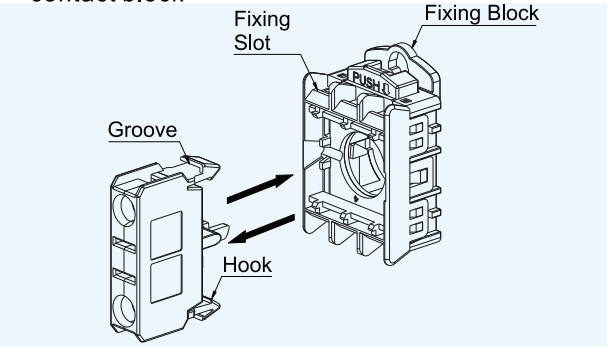
- Assembly and disassembly of fixing block with upper base



Assembly: Align the hole on top of fixing block with groove on the upper base and push them together.

Disassembly: Place downward by hand or use flat screwdriver to push down the orange button thru the hole on top of fixing block.

- Assembly and disassembly of fixing block with contact block

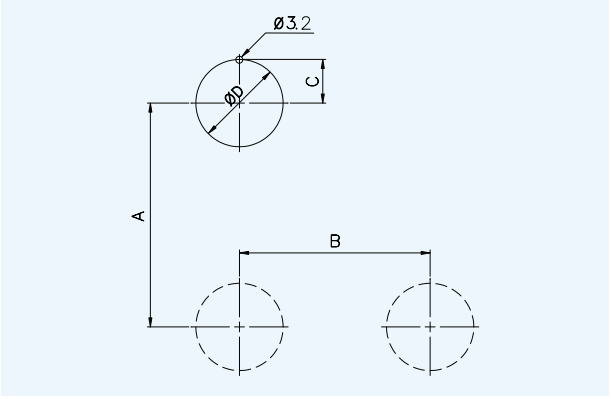


Assembly: Align the fixing slot on the fixing block to clip slot on contact block.

Disassembly: use flat screwdriver toward fixing slot to lift up clip and snap for disassembly.

PANEL CUT-OUT

Ø22/Ø25/Ø30 Series

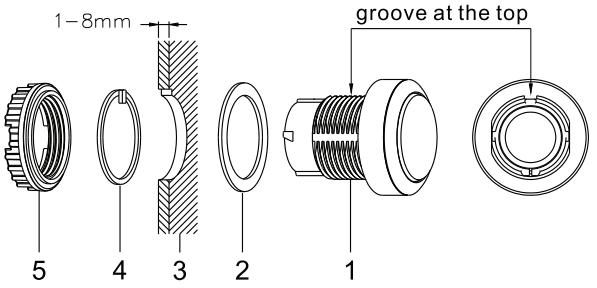


DIMENSIONS(mm)

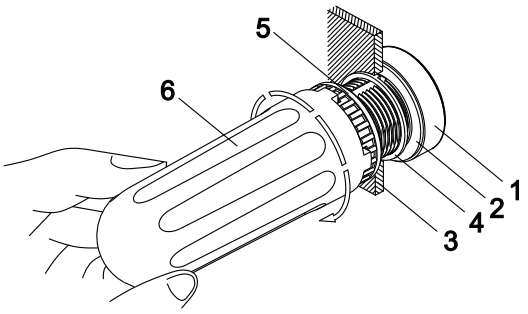
SERIES		Ø22	Ø25	Ø30
A	All types except Twin-touch &Joystick	50min.		
	Twin-Touch	60min.		
	Joystick	90min.		
B	Light push button & selector	31	31	35
	With name plate	41min.		
	Mushroom, Push - Lock, Long & Lever Selector, Twin - touch	39min.		
	Joystick	90min.		
C	All types	11.2	12.7	15.2
D	All types	22.4	25.4	30.4

tend TT2 Ø22/Ø25/Ø30 SERIES CONTROL COMPONENTS TT2

MOUNTING METHOD



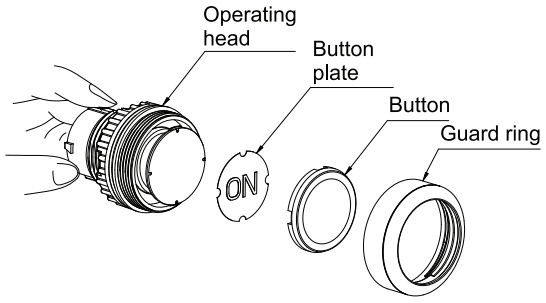
1	2	3	4	5	6
operating head	rubber ring	panel	stop ring	fixing ring	fixing tool



- Install the operating head and rubber ring through the front panel and tighten fixing ring with fixing tool

INDICATION OF LETTERS AND SYMBOLS

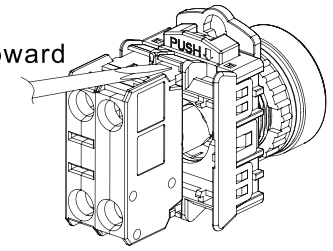
Transparent printing paper (types:see Ⓐ14)



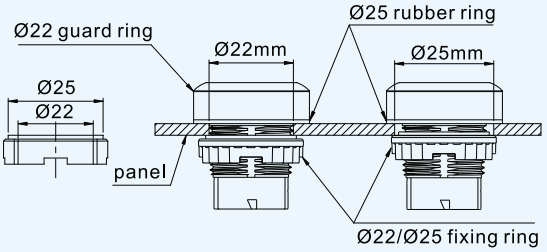
LAMP REPLACEMENT

The lamp has to be replaced with lamp base.

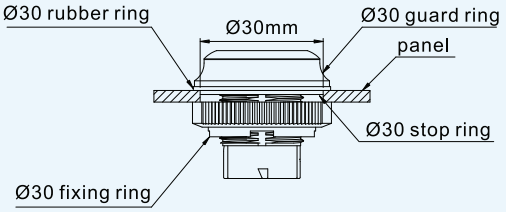
Use flat screwdriver toward groove to lift up fixing block for disassembly.



Ø22mm/Ø25mm SERIES ARE THE SAME DIMENSIONS WITH COMMON FIXING RING.



THE ASSEMBLY METHOD FOR Ø30 SERIES

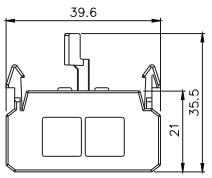


TYPES OF CONTACT BLOCK AND EXTENTION OF CONTACT BLOCK

There are 1a(1NO)、1b(1NC) and 1c(1NO、1NC).

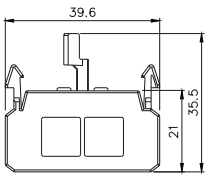
TT2-A(1a)





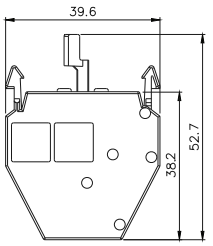
TT2-B(1b)





TT2-C(1c)

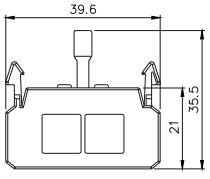




CONTACT BLOCK FOR TT2MR AND TT3MR SERIES. THE CONTACT BLOCK IS ONLY FOR JOYSTICK AND CAN NOT BE USED IN ANY OTHER TYPE OF SWITCHES.

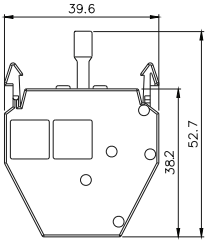
TT2MR-A(1a)





TT2MR-C(1c)

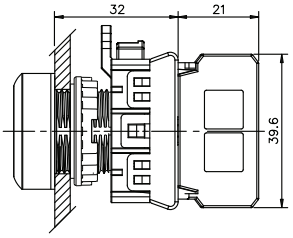




DIMENSIONS OF STAND CONTACT BLOCK

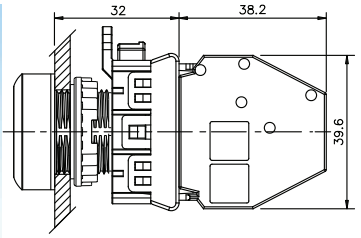
TT2-1a~TT2-2a,TT2-1b~TT2-2b,TT2-1ab





TT2-1c~TT2-2c

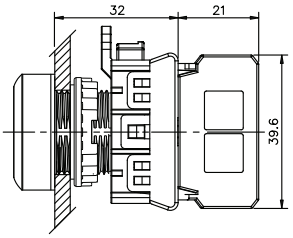




DIMENSIONS OF DIRECT CONTACT BLOCK

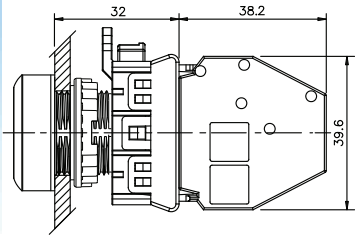
TT2-I1a~TT2-I2a,TT2-I1b~TT2-I2b,TT2-I1ab





Tt2-I1c~TT2-I2c





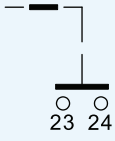
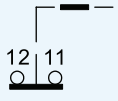
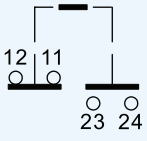
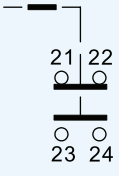
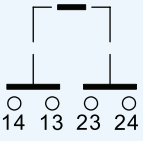
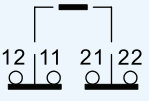
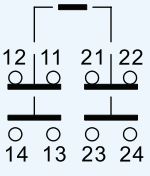
CONTACT RATING

AC	AC11	AC24V	AC110V	AC220V	AC380V	AC440V	DC	DC11	DC24V	DC110V	DC220V	DC380V
	Inductive load	10A	6A	4A	2.5A	2A		Inductive load	1.5A	0.5A	0.2A	0.1A
	Resistive load	10A	10A	6A	5A	4A		DC14 Resistive load	10A	2A	0.6A	0.2A

CHARACTERISTICS

Operating frequency	Mechanically	Push button(momentary) 60 cycles / min., Others 30 cycles / min.
	Electrically	30 cycles / min.
Service life	mechanically	Push button(momentary)3,000,000 operations., Others 300,000 operations.
	Electrically	Push button(momentary)500,000 operations., Others 200,000 operations.
Shock	Durability	Tans former series 600m/s^2 . , others 1000m/s^2
	Malfunction	Push button(momentary)1000m/s^2 . , others 250m/s^2
Vibration	Malfunction	10~55Hz double amplitude 1.5mm
Contact resistance	50mΩmax. (Initial value)	
Insulation resistance	100MΩ min.(500VDC)	
Dielectric strength	2500VAC,50/60 HZ for 1minute	
Ambient temperature	-20°C~+60°C	
Humidity	45~85%RH	

STANDARD CONTACT BLOCKS

Type	TT2-1A	TT2-1B	TT2-1AB	TT2-1C	TT2-2A	TT2-2B	TT2-2C
Contact	1a	1b	1a+1b	1a1b	2a	2b	2a2b
Contact Arrangement							

tend PUSH BUTTON SWITCH (TT2 Ø22/Ø25/Ø30)

The contact block of this series is standard see page Ⓐ3 Ⓐ4 for contact arrangement and dimensions .
Twin Touch type can only be used with AB contact.

MODEL DESIGNATION

TT2 BF R – 1 A
① ② ③ ④ ⑤

Designation	Signal	Description
1.Mounting hole	TT2 TT3	Ø22mm/Ø25mm Ø30mm
2.Type	BF BL BM BA BK BP BT	Flat Head Long Head Mushroom Head Long Head(Alternate) Push-Lock Push-Pull Twin-Touch ▲

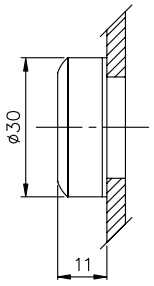
Designation	Signal	Description
3.Lens Color	R G Y W BL B	Red Green Yellow White Blue Black
4.NO.of contacts Fitted	1 2	1 2
5.Type of contact Block Fitted	A B C AB	1a 1b 1a1b 1a+1b

▲Only be used with AB contact

OPERATING HEADS DIMENSIONS

TT2BF

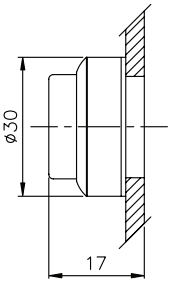




TT2BFR-1A	**130.-**	TT2BFG-1A	**130.-**
TT2BFR-1B	**130.-**	TT2BFG-1B	**130.-**
TT2BFR-2A	**260.-**		
TT2BFG-2A	**260.-**		
TT2BFR-1C	**140.-**		
TT2BFG-1C	**140.-**		

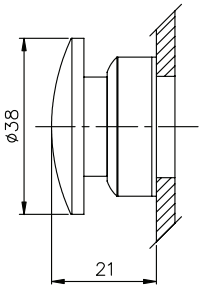
TT2BL





TT2BM

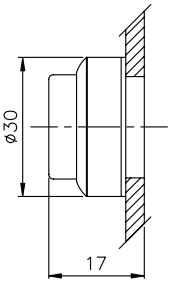




TT2BMR-1B	**140.-**
TT2BMG-1A	**140.-**
TT2BMG-2A	**270.-**
TT2BMR-1C	**150.-**
TT2BMG-1C	**150.-**

TT2BK





TT2BKR-1A	**205.-**
TT2BKR-1B	**205.-**
TT2BKR-1C	**205.-**

tend ILLUMINATED PUSH BUTTON (TT2 Ø22/Ø25/Ø30 DIRECT POWER)

The contact block for this series is direct contact block. Twin touch can only be used with AB contact.

MODEL DESIGNATION

TT2	IF	1	R	–	L	1	A	P06
①	②	③	④		⑤	⑥	⑦	⑧

Designation	Signal	Description
1.Mounting Hole	TT2 TT3	Ø22mm/Ø25mm Ø30mm
2.Type	IF IL IM IA IK IT	Flat Head Long Head Mushroom Head Long Head(Alternate) Push-Lock Twin-Touch ▲
3.Voltage	1 2 5 7 8 9	110VAC 220VAC 6VAC/DC 24VAC/DC 30VAC/DC 12VAC/DC

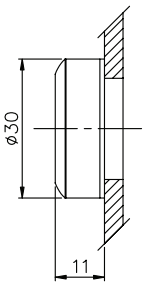
Designation	Signal	Description
4.Lens Color	R G O W BL C	Red Green Orange White Blue Claity
5.Lamp	L	LED Bulb
6.No. Of Contacts Fitted	1 2	1 2
7.Type of contact block fitted	A B C AB	1a 1b 1a1b 1a+1b
8.Lettering	00 P01~P43 M01~M22	 See page A 14 TPP See page A 14 TPM

▲Only be used with AB contact.

OPERATING HEAD DIMENSIONS

TT2IF





[220V]		[24V]	
TT2IF2R-L1A	380.-	TT2IF7R-L1A	380.-
TT2IF2R-L1B	380.-	TT2IF7R-L1B	380.-
TT2IF2R-L1C	400.-	TT2IF7R-L1C	400.-
TT2IF2G-L1A	380.-	TT2IF7G-L1A	380.-
TT2IF2G-L1B	380.-	TT2IF7G-L1B	380.-
TT2IF2G-L1C	400.-	TT2IF7G-L1C	400.-

MODEL DESIGNATION

TT2L	–	1	R
①		②	③

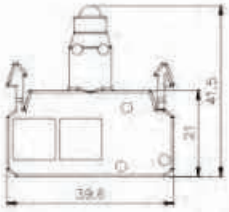
Designation	Signal	Description
1.Type	TT2L	LED Bulb

Designation	Signal	Description	
2.Voltage	1 2	110VAC 220VAC	6~9mA
	5 7 8 9	6VAC/DC 24VAC/DC 30VAC/DC 12VAC/DC	13~17mA
3.Lens Color	R G O W BL	Red Green Orange White Blue	

LAMP HOLDER BLOCKS (DIRECT POWER)

●LED Lamp Base







tend ILLUMINATED PUSH BUTTON (TT2 Ø22/Ø25/Ø30 WITH TRANSFORMER) TT2

2 Positions contact block arrange, 1C contact block arrangement for 2 Positions is 1a1b. 1C contact block arrangement for 3 Positions is 1a 0 1a.

MODEL DESIGNATION

TT2	SS	1	1	R	–	1	A
①	②	③	④	⑤		⑥	⑦

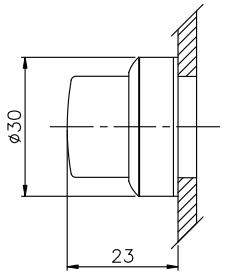
Designation	Signal	Description
1.Mounting Hole	TT2 TT3	Ø22mm/Ø25mm Ø30mm
2.Type	SS SH KS	Knob Operator Lever Operator Key Operator
3.Positions	1	90°X2 3-Position
	2	90° 2-Position
	3	90 ° 2-Position spring return from right
	4	45°X2 3-Position
	5	45°X2 3-Position spring return from right
	6	45°X2 3-Position spring return from left
	7	45°X2 3-Position 2-Way spring return

Designation	Signal	Description
4.Key Withdrawable	1	0 1 Key with-drawable
	2	0 Key with-drawable
	3	1 Key with-drawable
	5	0 Key with-drawable
	6	0 1 2 Key with-drawable
	7	0 Key with-drawable
5.Lens Color	R G B	Red Green Black
6.NO.of Contacts Fitted	1 2	1 2
7.Type of contact block Fitted		2-Position / 3-Position
	A	1a / ——
	B	1b / ——
	C	1a1b / ——
	AB	1a+1b / ——
	AA	—— / 1a+1a(2a)

OPERATING HEADS DIMENSIONS

TT2SS





TT2SS2B-1A **150.-**

TT2SS2B-2A **300.-**

TT2SS2B-1C **160.-**

TT2SS4B-2A **300.-**

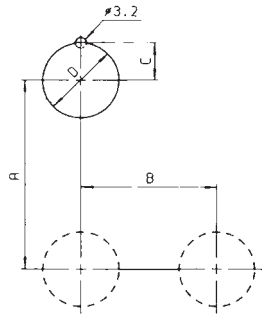
tend SERIES CONTROL COMPONENT

IP65 IEC144

Ø22 / Ø25 / Ø30

The upper base and contact block of this series of control components are detachable. IP65 (IEC144) , The protection structure for this series except Twin-Touch push button (IP40), makes the components waterproof, oiltight, dustproof and suitable for use in worse environment.

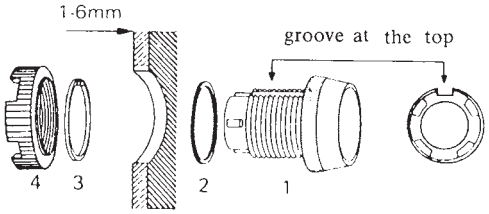
PANEL CUT-OUT (Ø22/ Ø25/ Ø30) SERIES

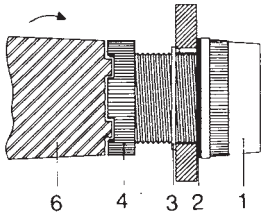


DIMENSIONS (mm)

Series		Ø22	Ø25	Ø30
C		11.1	12.7	15.2
D		22.2	25.5	30.5
A	Standard spacing (Round type, Square type)	45 min.	45 min.	45 min.
	Lever operator selector	50	50	50
	Twin-Touch push button	59	59	59
	Metal plate	45	45	50
B	Standard spacing (Round type, Square type)	30	30	40
	Lever operator selector	45	45	50
	Twin-Touch push button	36	36	36
	Metal plate	31	31	40
	Ø37 Mushroom	38	38	40

MOUNTING METHOD

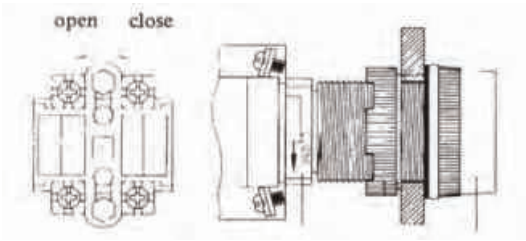




Place the upper base and rubber ring on the panel, thrust into the hole, put the stop ring inside the panel, aim at the upper base's and panel's fixing groove and press tight, then lock up the fixing ring.

1	2	3	4	5	6
upper base	rubber ring	stop ring	fixing ring	contact block	fixing instrument

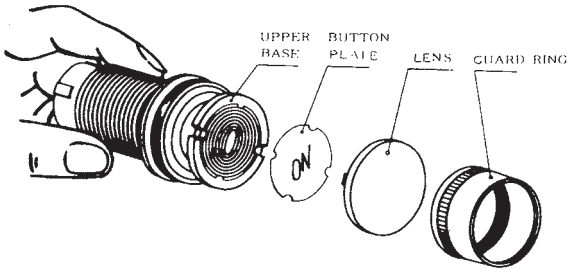
CONTACT BLOCK'S ASSEMBLY AND DISASSEMBLY



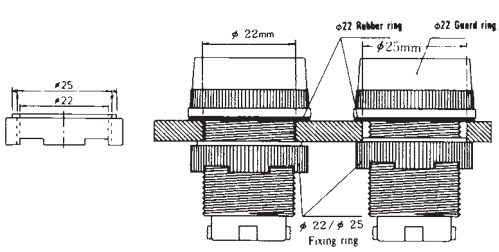
Put the contact block in the corresponding positions, one large the other small, on the upper base after the latter's fixed.Turn in the arrowed direction of "Close" and it's fixed. In disassembling,just turn in the arrowed direction of "OPEN"

INDICATION OF LETTERS AND SYMBOLS

- **Transparent printing pager**

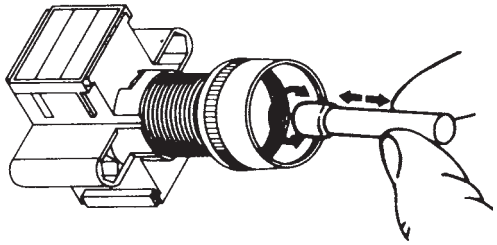


- **Ø22 mm/ Ø25 mm series are of same dimension and with common fixing ring**

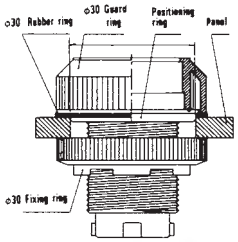


- **Method to replace lamp :**

Put the fixed-disassembling tool into the lamp,turn clockwise and the lamp is fixed.If counter-clockwise, the lamp is disassembling.



- **The assembly method for Ø30 mm series**



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend SERIES CONTROL COMPONENT

IP65 IEC144

Ø22 / Ø25 / Ø30

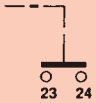
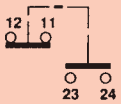
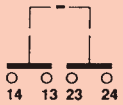
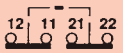
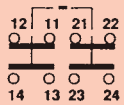
CONTACT RATING

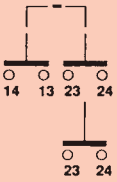
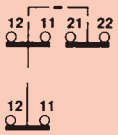
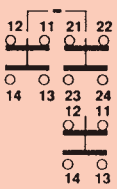
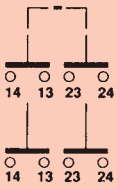
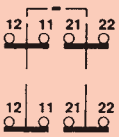
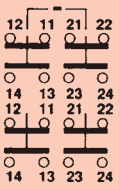
		AC125V	AC250V	AC440V	AC600V			DC125	DC250	DC380
AC	Inductive load	6 A	4 A	2 A	1 A	DC	Inductive load	0.5 A	0.2 A	0.1 A
	Resistive load	10 A	6 A	4 A	1.5 A		Resistive load	2 A	0.6 A	0.2 A

CHARACTERISTICS

Ambient temperature	-20˚C ~ +60˚C	
Humidity	45 - 85 % RH	
Contact resistance	50 mΩ max. (initial value)	
Insulation resistance	100 MΩ min. (at 500V DC)	
Dielectric strength	2,500V AC, 50/60 Hz for 1 minute	
Service life	Mechanically	Push Button / Illuminated Push Botton (Momentary) 3,000,000 Other 500,000
	Electrically	500,000 operations

STANDARD CONTACT BLOCKS

Type	TC-1A	TC-1B	TC-1C	TC-2A	TC-2B	TC-2C
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

Type	TC-3A	TC-3B	TC-3C	TC-4A	TC-4B	TC-4C
Contact	3a	3b	3a3b	4a	4b	4a4b
Contact arrangement						

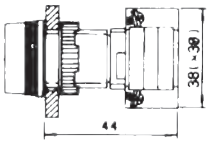
STANDARD TYPE OF CONTACT BLOCK AND ASSEMBLY METHOD

Short contact block is available in 1a, 1b, 1a1b, 2a and 2b. The contact may be increased to 2a2b by replacing the short block with the long one. If more contacts are needed, just add the short one to the long one (The short one is not designed for being added by other block at its rear end). 3a, 3b, 3a3b, 4a and 4b will be available with one-long-one-short blocks. By replacing the short block with another long one and becoming two-long blocks, 4a4b will be obtainable.

STANDARD CONTACT BLOCK DIMENSIONS คอนแทคบ๊อกสำหรับสวิตช์กด

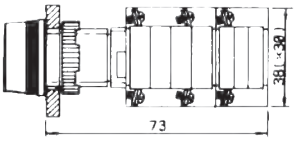
TC-1A, TC-1B, TC-1C, TC-2A, TC-2B **105.-**





TC-3A, TC-3B, TC-3C, TC-4A, TC-4B **335.-**

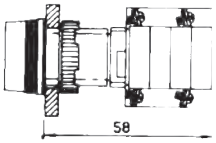




M3x44 SCREW 2PCS
M3NUT 2PCS

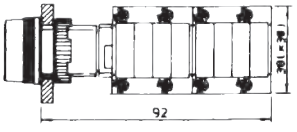
TC-2C **215.-**





TC-4C **420.-**





M3x44 SCREW 2PCS
M3NUT 2PCS

tend PUSH BUTTON SWITCH

สวิตช์กด IP65 IEC144

Ø22 / Ø25 / Ø30

The contact block of this series of switches is standard.

MODEL DESIGNATION

T2 BF R R - 1 C
1 2 3 4 5 6

Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	BF	Flat head
	BL	Long head
	BM	Mushroom head
	BA	Long head (Alternate)
	BB	Mushroom head (Alternate)
	BK	Push-Lock
	BT	Twin-Touch
	PB	Simple

Designation	Signal	Description
3.Shape	R	Round
	S	Square
	L	Rectangular
4.Lens color	R	Red
	G	Green
	Y	Yellow
	W	White
	B	Black
	BL	Blue
5.No. of contact blocks fitted	1 - 4	1-4
6.Type of contact blocks fitted	A	1a(1NO)
	B	1b(1NC)
	C	1a1b(1NO 1NC)

1 The upper base and contact block in simple type are of one unit, available with 1a1b contact, ø22 mm /ø25 mm fixing hole, round type only.
2 The mounting holes of square series are Ø22 mm / Ø25 mm available.
3 Twin-Touch Push Button is available with rectangular shape.

OPERATING HEAD DIMENSIONS

T2BFR สวิตช์กดหัวเรียบ 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	160.-
3a, 3b, 3a3b, 4a, 4b	390.-
2a2b	270.-
4a4b	475.-

T3BFR สวิตช์กดหัวเรียบ 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	170.-
3a, 3b, 3a3b, 4a, 4b	400.-
2a2b	280.-
4a4b	485.-

T2BLR สวิตช์กดหัวนูน 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	175.-
3a, 3b, 3a3b, 4a, 4b	405.-
2a2b	285.-
4a4b	490.-

T3BLR สวิตช์กดหัวนูน 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	185.-
3a, 3b, 3a3b, 4a, 4b	415.-
2a2b	295.-
4a4b	500.-

T2BMR สวิตช์กดดอกเห็ด 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	180.-
3a, 3b, 3a3b, 4a, 4b	410.-
2a2b	290.-
4a4b	495.-

T3BMR สวิตช์กดดอกเห็ด 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	195.-
3a, 3b, 3a3b, 4a, 4b	425.-
2a2b	305.-
4a4b	510.-

T2BAR สวิตช์กดจมหัวนูน 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	295.-
3a, 3b, 3a3b, 4a, 4b	525.-
2a2b	405.-
4a4b	610.-

T3BAR สวิตช์กดจมหัวนูน 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	305.-
3a, 3b, 3a3b, 4a, 4b	535.-
2a2b	415.-
4a4b	620.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend PUSH BUTTON SWITCH

สวิตช์กด IP65 IEC144

Ø22 / Ø25 / Ø30

T2BBR สวิตช์กดจมดอกเห็ด 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	315.-
3a, 3b, 3a3b, 4a, 4b	545.-
2a2b	425.-
4a4b	630.-

T3BBR สวิตช์กดจมดอกเห็ด 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	325.-
3a, 3b, 3a3b, 4a, 4b	555.-
2a2b	435.-
4a4b	640.-

T2BKR สวิตช์กดล็อคดอกเห็ด 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	275.-
3a, 3b, 3a3b, 4a, 4b	505.-
2a2b	385.-
4a4b	590.-

T3BKR สวิตช์กดล็อคดอกเห็ด 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	285.-
3a, 3b, 3a3b, 4a, 4b	515.-
2a2b	395.-
4a4b	600.-

T2BTL สวิตช์กดปิด-เปิด 22/25 มม. (ยกเว้นไม่กันน้ำ)



	Price
1a, 1b, 1a1b, 2a, 2b	320.-
3a, 3b, 3a3b, 4a, 4b	550.-
2a2b	430.-
4a4b	635.-

T3BTL สวิตช์กดปิด-เปิด 30 มม. (ยกเว้นไม่กันน้ำ)



	Price
1a, 1b, 1a1b, 2a, 2b	330.-
3a, 3b, 3a3b, 4a, 4b	560.-
2a2b	440.-
4a4b	645.-

T2BFS สวิตช์กดหัวเรียบ 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	185.-
3a, 3b, 3a3b, 4a, 4b	415.-
2a2b	295.-
4a4b	500.-

T2BLS สวิตช์กดหัวเรียบ 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	175.-
3a, 3b, 3a3b, 4a, 4b	405.-
2a2b	285.-
4a4b	490.-

T2BMS สวิตช์กดดอกเห็ด 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	210.-
3a, 3b, 3a3b, 4a, 4b	440.-
2a2b	320.-
4a4b	525.-

T2BAS สวิตช์กดดอกเห็ด 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	330.-
3a, 3b, 3a3b, 4a, 4b	560.-
2a2b	440.-
4a4b	645.-

T2BBS สวิตช์กดจมดอกเห็ด 22/25 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	345.-
3a, 3b, 3a3b, 4a, 4b	575.-
2a2b	455.-
4a4b	660.-

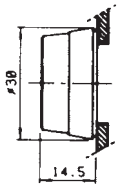
T2BKS สวิตช์กดจมดอกเห็ด 30 มม.



	Price
1a, 1b, 1a1b, 2a, 2b	285.-
3a, 3b, 3a3b, 4a, 4b	515.-
2a2b	395.-
4a4b	600.-

T2PB สวิตช์กดหัวเรียบ 22/25 มม. 88.-





TN2-BTW ฝาครอบกันน้ำ 135.-

Waterproof cap for twin touch push botton switch for T2BTL, T3BTL

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดต่อตรง IP65 IEC144

Ø22 / Ø25 / Ø30

BULB TYPE AND CHARACTERISTICS

- BA9S-11x2 mm 1.2W max.
- NEON BULB



Type	Voltage	Lamp color	Lens color	Price
2S-9-110R	110V AC	Red	Red lamps for use with red, orange white lens green lamps for use with green, blue lens.	32.-
2S-9-110G		Green		
2S-9-220R	220V AC	Red		
2S-9-220G		Green		
2S-9-380R	380V AC	Red		
2S-9-380G		Green		

- INCAN BULB

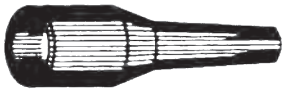


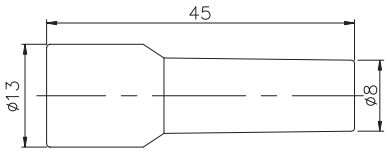
Type	Voltage	Price
2S-9-6.3	6V	17.-
2S-9-18	18V	20.-
2S-9-30	30V	25.-
2S-9-12	12V	20.-

BULB EXTRATOR

T2-A **100.-**







MODEL DESIGNATION

T2 IF R 1 R - 1 C
1 2 3 4 5 6 7

Designation	Signal	Description
1.Mounting hole	T2	Ø22mm/ Ø25 mm
	T3	Ø30 mm
2.Type	IF	Flat Head
	IL	Long Head
	IM	Mushroom Head
	IA	Long Head (Alternate)
	IB	Mushroom Head (Alternate)
	IK	Push-Lock
	IT	Twin-Lock
3.Shape	R	Round
	S	Square
	L	Rectangular

1. The mounting holes of square series are ø22 mm / ø25 mm available.
2. Twin-Touch illuminated push button is available with rectangular shaper, various colors, and transparent.

Designation	Signal	Description
4.Voltage	1	110 V AC (Neon Bulb)
	2	220 V AC (Neon Bulb)
	3	380 V AC (Neon Bulb)
	4	440 V AC (Neon Bulb)
	5	6 V AC (Neon Bulb)
	6	18 V AC (Neon Bulb)
	7	24 V AC (Neon Bulb)
	8	30 V AC (Neon Bulb)
	9	12 V AC (Neon Bulb)
5.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
6.No. of contacts blocks fitted	1 - 3	1-3
7.Type of contacts blocks fitted	A	1a(1NO)
	B	1b(1NC)
	C	1a1b(1NO 1NC)

OPERATING HEAD DIMENSIONS

T2IFR สวิตช์กดมีไพล็อตแลมป์ - หัวเรียบ 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	270.-
3a, 3b, 2a2b, 4a	375.-
3a3b	490.-

T3IFR สวิตช์กดมีไพล็อตแลมป์ - หัวเรียบ 30 มม.



	Price
1a, 1b, 1a1b, 2a	290.-
3a, 3b, 2a2b, 4a	395.-
3a3b	510.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดต่อตรง IP65 IEC144

Ø22 / Ø25 / Ø30

T2ILR สวิตช์กดมีไพล็อตแลมป์-หัวนูน 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	290.-
3a, 3b, 2a2b, 4a	395.-
3a3b	510.-

T3ILR สวิตช์กดมีไพล็อตแลมป์-หัวนูน 30 มม.



	Price
1a, 1b, 1a1b, 2a	300.-
3a, 3b, 2a2b, 4a	405.-
3a3b	520.-

T2IMR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ด 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	320.-
3a, 3b, 2a2b, 4a	425.-
3a3b	540.-

T3IMR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ด 30 มม.



	Price
1a, 1b, 1a1b, 2a	330.-
3a, 3b, 2a2b, 4a	435.-
3a3b	550.-

T2IAR สวิตช์กดมีไพล็อตแลมป์หัวนูนกดจม 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	440.-
3a, 3b, 2a2b, 4a	545.-
3a3b	660.-

T3IAR สวิตช์กดมีไพล็อตแลมป์หัวนูนกดจม 30 มม.



	Price
1a, 1b, 1a1b, 2a	455.-
3a, 3b, 2a2b, 4a	560.-
3a3b	675.-

T2IBR สวิตช์กดมีไพล็อตแลมป์ดอกเห็ดกดจม 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	455.-
3a, 3b, 2a2b, 4a	560.-
3a3b	675.-

T3IBR สวิตช์กดมีไพล็อตแลมป์ดอกเห็ดกดจม 30 มม.



	Price
1a, 1b, 1a1b, 2a	465.-
3a, 3b, 2a2b, 4a	570.-
3a3b	685.-

T2IKR สวิตช์กดมีไพล็อตแลมป์ดอกเห็ดกดล็อค 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	395.-
3a, 3b, 2a2b, 4a	500.-
3a3b	615.-

T3IKR สวิตช์กดมีไพล็อตแลมป์ดอกเห็ดกดล็อค 30 มม.



	Price
1a, 1b, 1a1b, 2a	405.-
3a, 3b, 2a2b, 4a	510.-
3a3b	625.-

T2ITL สวิตช์กดปิด-เปิดมีไพล็อตแลมป์ 22/25 มม. (ยกเว้นรุ่นนี้ IP 40 ไม่กันน้ำ)



	Price
1a, 1b, 1a1b, 2a	410.-
3a, 3b, 2a2b, 4a	515.-
3a3b	630.-

T3ITL สวิตช์กดปิด-เปิดมีไพล็อตแลมป์ 30 มม. (ยกเว้นรุ่นนี้ IP 40 ไม่กันน้ำ)



	Price
1a, 1b, 1a1b, 2a	435.-
3a, 3b, 2a2b, 4a	540.-
3a3b	655.-

T2IFS สวิตช์กดมีไพล็อตแลมป์หัวเรียบ 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	310.-
3a, 3b, 2a2b, 4a	415.-
3a3b	530.-

T2ILS สวิตช์กดมีไพล็อตแลมป์หัวเรียบ 30 มม.



	Price
1a, 1b, 1a1b, 2a	320.-
3a, 3b, 2a2b, 4a	425.-
3a3b	540.-

T2IMS สวิตช์กดดอกเห็ดมีไพล็อตแลมป์ 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	340.-
3a, 3b, 2a2b, 4a	445.-
3a3b	560.-

T2IAS สวิตช์กดดอกเห็ดมีไพล็อตแลมป์ 30 มม.



	Price
1a, 1b, 1a1b, 2a	455.-
3a, 3b, 2a2b, 4a	560.-
3a3b	645.-

TN2-BTW ฝาครอบกันน้ำ **135.-**

Waterproof cap for twin touch push botton switch for T2BTL, T3BTL

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดต่อตรง IP65 IEC144

Ø22 / Ø25 / Ø30

T2IBS สวิตช์กดมีไพล็อตแลมป์ดอกเห็ดจม 22/25 มม.



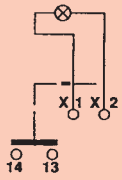
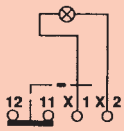
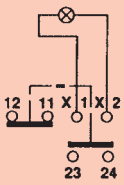
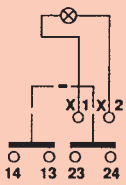
	Price
1a, 1b, 1a1b, 2a	475.-
3a, 3b, 2a2b, 4a	580.-
3a3b	695.-

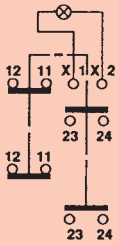
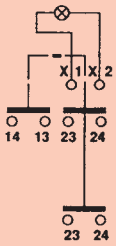
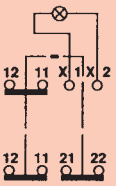
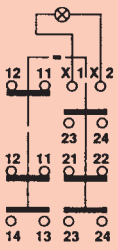
T2IKS สวิตช์กดมีไพล็อตแลมป์ดอกเห็ดล็อค 22/25 มม.



	Price
1a, 1b, 1a1b, 2a	400.-
3a, 3b, 2a2b, 4a	505.-
3a3b	620.-

ILLUMINATED PUSH BOTTON (DIRECT POWER) CONTACT BLOCKS

Type	TC-I1A	TC-I1B	TC-I1C	TC-I2A
Contact	1a	1b	1a1b	2a
Contact arrangement				

Type	TC-I2C	TC-I3A	TC-I3B	TC-I4A	TC-I3C
Contact	2a2b	3a	3b	4a	3a3b
Contact arrangement					

TYPE OF ILLUMINATED (DIRECT POWER) CONTACT BLOCK AND ASSEMBLY METHOD

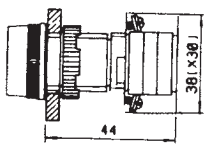
Short contact block is available in 1a, 1b. Long contact block is available in 1a1b, 2a. If more contact are needed, just add the short one to the long one (The short one is not designed for being added by other block at its rear end), 2b, 2a2b, 3a, 3b, 4a will be available with one-long-one-short blocks. By replacing the short block with another long one and becoming two-long blocks, 3a3b. will be obtainable.

ILLUMINATED PUSH BOTTON (DIRECT POWER) CONTACT BLOCK DIMENSIONS

คอนแทคบ๊อก สำหรับสวิตช์กดมีไพล็อตแลมป์ในตัว (ชนิดต่อตรง)

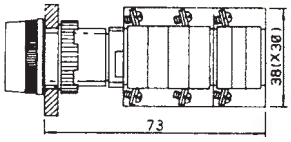
TC-I1A, TC-I1B 240.-





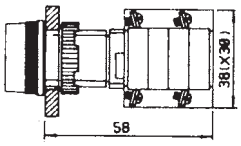
TC-I3A, TC-I3B, TC-I2C, TC-I4A 345.-





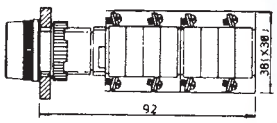
TC-I1C, TC-I2A, TC-I2B 240.-





TC-I3C 460.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดหม้อแปลง IP65 IEC144

Ø22 / Ø25 / Ø30

This series of switches are equipped with transformers at the secondary voltage of 5V and TS9-5 (6V) bulb used.

MODEL DESIGNATION

T2 TF R 1 R - 1 C
1 2 3 4 5 6 7

Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	TF	Flat head
	TL	Long head
	TM	Mushroom head
	TA	Long head (Alternate)
	TB	Mushroom head (Alternate)
	TK	Push-Lock
	TT	Twin-Touch
3.Shape	R	Round
	S	Square
	L	Rectangular

Designation	Signal	Description
4.Voltage (50Hz~60Hz)	1	110/ 5V AC
	2	220/ 5V AC
5.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
6.No. of contacts blocks fitted	1 - 2	1-2
7.Type of contacts blocks fitted	A	1a(1NO)
	B	1b(1NC)
	C	1a1b(1NO 1NC)

1. The mounting holes of square series are ø22 mm / ø25 mm available.
2. Twin-Touch illuminated push button is available with rectangular shape, various colors, and transparent.
3. The voltages of illuminated push button are 110/5V AC and 220/5V AC.

TYPE OF ILLUMINATED CONTACT BLOCK AND ASSEMBLY METHOD

Long or short contact block is same as standard one. After disassembling the transformer base, the assembly method of contact block is same as that of standard type.

OPERATING HEAD DIMENSIONS

T2TFR สวิตช์กดมีไพล็อตแลมป์-หัวเรียบ 22/25 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	425.-
2a2b	525.-

T3TFR สวิตช์กดมีไพล็อตแลมป์-หัวเรียบ 30 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	440.-
2a2b	540.-

T2TLR สวิตช์กดมีไพล็อตแลมป์-หัวนูน 22/25 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	440.-
2a2b	540.-

T3TLR สวิตช์กดมีไพล็อตแลมป์-หัวนูน 30 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	455.-
2a2b	555.-

T2TMR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ด 22/25 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	460.-
2a2b	560.-

T3TMR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ด 30 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	470.-
2a2b	570.-

T2TAR สวิตช์กดมีไพล็อตแลมป์-หัวนูนกดจม 22/25 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	580.-
2a2b	680.-

T3TAR สวิตช์กดมีไพล็อตแลมป์-หัวนูนกดจม 30 มม. 380V, 220V



	Price
1a,1b,1a1b, 2a,2b	590.-
2a2b	690.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดหม้อแปลง IP65 IEC144

Ø22 / Ø25 / Ø30

T2TBR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ดกดจม 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	590.-
2a2b	690.-

T3TBR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ดกดจม 30 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	605.-
2a2b	705.-

T2TKR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ดกดล็อค 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	535.-
2a2b	635.-

T3TKR สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ดกดล็อค 30 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	545.-
2a2b	645.-

T2TTL สวิตช์กดเปิด-ปิดมีไพล็อตแลมป์ 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	575.-
2a2b	675.-

ยกเว้นรุ่นนี้เป็น IP40

T3TTL สวิตช์กดเปิด-ปิดมีไพล็อตแลมป์ 30 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	585.-
2a2b	685.-

ยกเว้นรุ่นนี้เป็น IP40

T2TFS สวิตช์กดมีไพล็อตแลมป์-หัวเรียบ 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	430.-
2a2b	530.-

T2TLS สวิตช์กดมีไพล็อตแลมป์-หัวนูน 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	460.-
2a2b	560.-

T2TMS สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ด 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	475.-
2a2b	575.-

T2TAS สวิตช์กดมีไพล็อตแลมป์-หัวนูนกดจม 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	580.-
2a2b	680.-

T2TBS สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ดกดจม 22/25 มม. 380V,220V



	Price
1a,1b,1a1b, 2a,2b	615.-
2a2b	715.-

T2TKS สวิตช์กดมีไพล็อตแลมป์-ดอกเห็ดกดล็อค 22/25 มม. 380V,220V



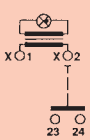
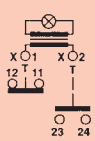
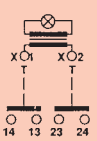
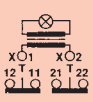
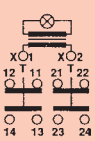
	Price
1a,1b,1a1b, 2a,2b	560.-
2a2b	660.-

TN2-BTW ฝาครอบกันน้ำ 135.-

Waterproof cap for twin touch push botton switch for T2BTL, T3BTL

ILLUMINATED PUSH BOTTON CONTACT BLOCKS (WITH TRANSFORMER) DIMENSIONS

คอนแท็คบ๊อก สำหรับสวิตช์มีไพล็อตแลมป์ (ชนิดหม้อแปลง)

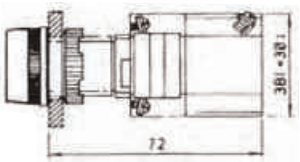
Type	TC-T1A	TC-T1B	TC-T1C	TC-T2A	TC-T2B	TC-T2C
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

ILLUMINATED PUSH BOTTON CONTACT BLOCKS (WITH TRANSFORMER) DIMENSIONS

คอนแท็คบ๊อก สำหรับสวิตช์มีไพล็อตแลมป์ (ชนิดหม้อแปลง)

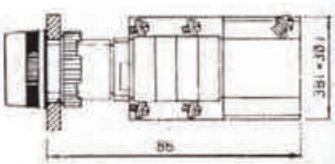
TC-T1A, TC-T1B, TC-1C,TC-T2A, TC-T2B, TC-T1C 355.-





TC-T2C 455.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

SELECTOR SWITCH / KEY SWITCH

สวิตช์ลูกศร / สวิตช์กุญแจ IP65 IEC144

Ø22 / Ø25 / Ø30

The contact block of this series of switches is standard.

MODEL DESIGNATION

T2 SS R 1 1 R - 1 C
1 2 3 4 5 6 7 8

Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	SS	Knob Operator
	SH	Lever Operator
	KS	Key Operator
3.Shape	R	Round
	S	Square
4.Positions	1	45°x 2 Position
	2	90°x 2 Position
	3	45°x 2 Position Spring return from right
	4	45°x 2 3 Position
	5	45°x 2 3 Position Spring return from right
	6	45°x 2 3 Position Spring return from left
	7	45°x 2 3 Position 2 Way Spring return

Designation	Signal		Description
5.Key withdrawable	1	2 Positions (0 1)	0.1 Key with-drawable
	2		0 Key with-drawable
	3		1 Key with-drawable
	4	3 Positions (1 0 2)	0.1.2 Key with-drawable
	5		0 Key with-drawable
6.Lens color	R		Red
	G		Green
	B		Black
7.No. of contacts fitted	1-4		1-4

8.Type of contact blocks fitted		2-Positions	3-Positions
	A	1a(1NO)	-
	B	1b(1NC)	-
	C	1a1b(1NO 1NC)	1a 0 1a

OPERATING HEAD DIMENSIONS

T2SSR สวิตช์ลูกศร 22/25 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	205.-
2 Positions	2a2b	315.-
3 Positions	1a 0 1a	205.-
3 Positions	2a 0 2a	315.-

T3SSR สวิตช์ลูกศร 30 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	215.-
2 Positions	2a2b	325.-
3 Positions	1a 0 1a	215.-
3 Positions	2a 0 2a	325.-

T2SHR สวิตช์ลูกศร 22/25 มม. ก้านยาว



		Price
2 Positions	1a,1b,1a1b, 2a,2b	220.-
2 Positions	2a2b	330.-
3 Positions	1a 0 1a	220.-
3 Positions	2a 0 2a	330.-

T3SHR สวิตช์ลูกศร 30 มม. ก้านยาว



		Price
2 Positions	1a,1b,1a1b, 2a,2b	235.-
2 Positions	2a2b	345.-
3 Positions	1a 0 1a	235.-
3 Positions	2a 0 2a	345.-

T2KSR สวิตช์กุญแจ 22/25 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	545.-
2 Positions	2a2b	655.-
3 Positions	1a 0 1a	545.-
3 Positions	2a 0 2a	655.-

T3KSR สวิตช์กุญแจ 30 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	555.-
2 Positions	2a2b	665.-
3 Positions	1a 0 1a	555.-
3 Positions	2a 0 2a	665.-

T2SSS สวิตช์ลูกศร-หัวเหลี่ยม 22/25 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	230.-
2 Positions	2a2b	340.-
3 Positions	1a 0 1a	230.-
3 Positions	2a 0 2a	340.-

T2SHS สวิตช์ลูกศร-หัวเหลี่ยม 22/25 มม. ก้านยาว



		Price
2 Positions	1a,1b,1a1b, 2a,2b	245.-
2 Positions	2a2b	355.-
3 Positions	1a 0 1a	245.-
3 Positions	2a 0 2a	355.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

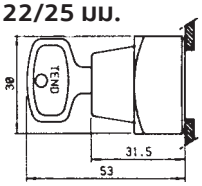
KEY SWITCH / ILLUMINATED SELECTOR SWITCH

สวิตช์กุญแจ / สวิตช์ลูกศรมีแลมป์ IP65 IEC144

Ø22 / Ø25 / Ø30

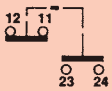
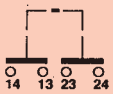
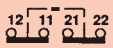
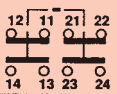
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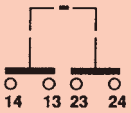
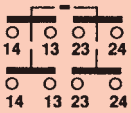


		Price
2 Positions	1a,1b,1a1b, 2a,2b	**595.-**
2 Positions	2a2b	**705.-**
3 Positions	1a 0 1a	**595.-**
3 Positions	2a 0 2a	**705.-**

SELECTOR SWITCH 2-POSITIONS CONTACT ARRANGEMENT

Type	TC-1A	TC-1B	TC-1C2	TC-2A	TC-2B	TC-2C2
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						
	Contact 0 1 23-24 x	Contact 0 1 11-12 x	Contact 0 1 11-12 x 23-24 x	Contact 0 1 13-14 x 23-24 x	Contact 0 1 11-12 x 21-22 x	Contact 0 1 11-12 x 13-14 x 21-22 x 23-24 x

SELECTOR SWITCH 3-POSITIONS CONTACT ARRANGEMENT

Type	TC-1C3	TC-2C3
Contact	1a 0 1a	2a 0 2a
Contact arrangement	 Contact 1 0 2 13-14 x 23-24 x	 Contact 1 0 2 13-14 x 13-14 x 23-24 x 23-24 x

ILLUMINATED SELECT SWITCH (Ø22 / Ø25 / Ø30 Direct Power)

ชนิดกันน้ำ,กันน้ำมัน,กันฝุ่น IP65 IEC144 ISO 9002

สวิตช์ลูกศรมีไพล็อตแลมป์ (ชนิดต่อตรง)

The contact block of this series of switches is illuminated type.
This type and specification of bulb used are same as those for direct type illuminated push buuton switch.

MODEL DESIGNATION

T2 IS R 1 1 R - 1 C
1 2 3 4 5 6 7 8

Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	IS	Knob Operator
	IH	Lever Operator
3.Shape	R	Round
	S	Square
4.Positions	1	 45°x 2 Position
	2	 90°x 2 Position
	3	 45°x 2 Position Spring return from right
	4	 45°x 2 3 Position
	5	 45°x 2 3 Position Spring return from right
	6	 45°x 2 3 Position Spring return from left
	7	 45°x 2 3 Position 2 Way Spring return

Designation	Signal	Description
5.Voltage	1	110V AC (Neon bulb)
	2	220V AC (Neon bulb)
	3	380V AC (Neon bulb)
	4	440V AC (Neon bulb)
	5	6V AC (Filament bulb)
	6	18V AC (Filament bulb)
	7	24V AC (Filament bulb)
	8	30V AC (Filament bulb)
	9	12V AC (Filament bulb)
6.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
7.No. of contacts fitted	1-3	1-3
8.Type of contact blocks fitted		2-Positions / 3-Positions
	A	1a(1NO) / -
	B	1b(1NC) / -
	C	1a1b(1NO 1NC) / 1a 0 1a

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

ILLUMINATED SELECTOR SWITCH

สวิตช์ลูกศรมีแลมป์ ชนิดต่อตรง IP65 IEC144

Ø22 / Ø25 / Ø30

OPERATING HEAD DIMENSIONS

T2ISR สวิตช์ลูกศรมีไพล็อตแลมป์ 22/25 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	375.-
2 Positions	2a2b	480.-
3 Positions	1a 0 1a	375.-
3 Positions	2a 0 2a	480.-

T3ISR สวิตช์ลูกศรมีไพล็อตแลมป์ 30 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	385.-
2 Positions	2a2b	490.-
3 Positions	1a 0 1a	385.-
3 Positions	2a 0 2a	490.-

Lorem ipsum

T2IHR สวิตช์ลูกศรมีไพล็อตแลมป์-ก้านยาว 22/25 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	355.-
2 Positions	2a2b	460.-
3 Positions	1a 0 1a	355.-
3 Positions	2a 0 2a	460.-

T3IHR สวิตช์ลูกศรมีไพล็อตแลมป์-ก้านยาว 30 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	370.-
2 Positions	2a2b	475.-
3 Positions	1a 0 1a	370.-
3 Positions	2a 0 2a	475.-

T2ISS สวิตช์ลูกศรมีไพล็อตแลมป์-หัวเหลี่ยม 22/25 มม.



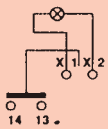
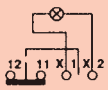
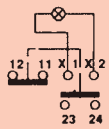
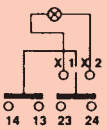
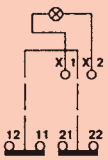
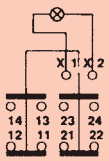
		Price
2 Positions	1a,1b,1a1b, 2a,2b	375.-
2 Positions	2a2b	480.-
3 Positions	1a 0 1a	375.-
3 Positions	2a 0 2a	480.-

T2IHS สวิตช์ลูกศรมีไพล็อตแลมป์-หัวเหลี่ยม-ก้านยาว 22/25 มม.



		Price
2 Positions	1a,1b,1a1b, 2a,2b	395.-
2 Positions	2a2b	500.-
3 Positions	1a 0 1a	395.-
3 Positions	2a 0 2a	500.-

ILLUMINATED SELECTOR SWITCH (DIRECT POWER) 2-POSITIONS CONTACT ARRANGEMENT

Type	TC-I1A	TC-I1B	TC-I1C	TC-I2A	TC-I2B	TC-I2C2
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

Contact	0	1
13-14		x

Contact	0	1
11-12	x	

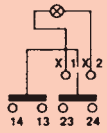
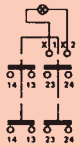
Contact	0	1
11-12	x	
23-24		x

Contact	0	1
13-14		x
23-24		x

Contact	0	1
11-12	x	
21-22	x	

Contact	0	1
11-12	x	
13-14		x
21-22	x	
23-24		x

ILLUMINATED SELECTOR SWITCH (DIRECT POWER) 3-POSITIONS CONTACT ARRANGEMENT

Type	TC-I1C3	TC-I2C3
Contact	1a 0 1a	2a 0 2a
Contact arrangement		

Contact	1	0	2
13-14	x		
23-24			x

Contact	1	0	2
13-14	x		
13-14	x		
23-24			x
23-24			x

หมายเหตุ : หากต้องการเปลี่ยนเป็นหลอด LED ต้องเพิ่มราคาอีกตัวละ 45 บาท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

ILLUMINATED SELECTOR SWITCH

สวิตช์ลูกศรมีแลมป์ ชนิดหม้อแปลง IP65 IEC144

Ø22 / Ø25 / Ø30

The contact block of this series of switches is standard.
This series of switches are equipped with transformers at the secondary voltage of 5V and TS9-5(6V) bulb used.

MODEL DESIGNATION

T2	TS	R	1	1	R	-	1	C
1	2	3	4	5	6		7	8

Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	TS	Knob Operator
	TH	Lever Operator
3.Shape	R	Round
	S	Square
4.Positions	1	45°x 2 Position
	2	90°x 2 Position
	3	45°x 2 Position Spring return from right
	4	45°x 2 3 Position
	5	45°x 2 3 Position Spring return from right
	6	45°x 2 3 Position Spring return from left
	7	45°x 2 3 Position 2 Way Spring return

Designation	Signal	Description	
5.Voltage (50-60Hz)	1	110V AC / 5V AC	
	2	220V AC / 5V AC	
6.Lens color	R	Red	
	G	Green	
	O	Orange	
	W	White	
	BL	Blue	
7.No. of contacts fitted	1-2	1-2	
8.Type of contact blocks fitted		2 Positions	3 Positions
	A	1a(1NO)	-
	B	1b(1NC)	-
	C	1a1b(1NO 1NC)	1a 01a

• The mounting holes of square series are ø22 mm /ø25 mm available.

OPERATING HEAD DIMENSIONS

T2TSR สวิตช์ลูกศรมีไพล็อตแลมป์ 22/25 มม. 380V,220V



		Price
2 Positions	1a,1b,1a1b, 2a,2b	475.-
2 Positions	2a2b	575.-
3 Positions	1a 0 1a	475.-
3 Positions	2a 0 2a	575.-

T3TSR สวิตช์ลูกศรมีไพล็อตแลมป์ 30 มม. 380V,220V



		Price
2 Positions	1a,1b,1a1b, 2a,2b	485.-
2 Positions	2a2b	585.-
3 Positions	1a 0 1a	485.-
3 Positions	2a 0 2a	585.-

T2THR สวิตช์ลูกศรมีไพล็อตแลมป์-ก้านยาว 22/25 มม. 380V,220V



		Price
2 Positions	1a,1b,1a1b, 2a,2b	485.-
2 Positions	2a2b	585.-
3 Positions	1a 0 1a	485.-
3 Positions	2a 0 2a	585.-

T3THR สวิตช์ลูกศรมีไพล็อตแลมป์-ก้านยาว 30 มม. 380V,220V



		Price
2 Positions	1a,1b,1a1b, 2a,2b	495.-
2 Positions	2a2b	595.-
3 Positions	1a 0 1a	495.-
3 Positions	2a 0 2a	595.-

T2TSS สวิตช์ลูกศรมีไพล็อตแลมป์-หัวเหลี่ยม 22/25 มม. 380V,220V



		Price
2 Positions	1a,1b,1a1b, 2a,2b	505.-
2 Positions	2a2b	605.-
3 Positions	1a 0 1a	505.-
3 Positions	2a 0 2a	605.-

T2THS สวิตช์ลูกศรมีไพล็อตแลมป์-หัวเหลี่ยม-ก้านยาว 30 มม. 380V,220



		Price
2 Positions	1a,1b,1a1b, 2a,2b	510.-
2 Positions	2a2b	610.-
3 Positions	1a 0 1a	510.-
3 Positions	2a 0 2a	610.-

หมายเหตุ : หากต้องการเปลี่ยนเป็นหลอด LED ต้องเพิ่มราคาอีกตัวละ 45 บาท

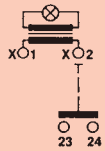
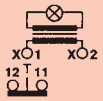
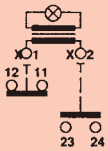
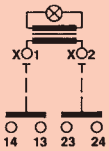
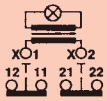
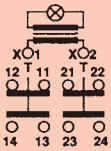
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ILLUMINATED SELECTOR SWITCH / PILOT LAMP PUSH BUTTON

สวิตช์ลูกศรมีแลมป์ ชนิดหม้อแปลง / ไพล็อตแลมป์ IP65 IEC144

Ø22 / Ø25 / Ø30

ILLUMINATED SELECTOR SWITCH (TRANSFORMER) 2-POSITIONS CONTACT ARRANGEMENT

Type	TC-T1A	TC-T1B	TC-T1C2	TC-T2A	TC-T2B	TC-T2C2
Contact	1a	1b	1a1b	2a	2b	2a2b
Contact arrangement						

Contact	0	1
23-24		x

Contact	0	1
11-12	x	

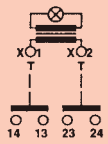
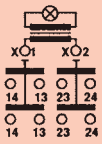
Contact	0	1
11-12	x	
23-24		x

Contact	0	1
13-14		x
23-24		x

Contact	0	1
11-12	x	
21-22	x	

Contact	0	1
11-12	x	
13-14		x
21-22	x	
23-24		x

ILLUMINATED SELECTOR SWITCH (DIRECT POWER) 3-POSITIONS CONTACT ARRANGEMENT

Type	TC-T1C3	TC-T2C3
Contact	1a 0 1a	2a 0 2a
Contact arrangement		

Contact	1	0	2
13-14	x		
23-24			x

Contact	1	0	2
13-14	x		
13-14	x		
23-24			x
23-24			x

PILOT LAMP PUSH BUTTON (Ø22 / Ø25 / Ø30) WITH TRANSFORMER ไพล็อตแลมป์ต่อตรง

This series of bulbs used are same as those for direct types illuminated push button switch.

MODEL DESIGNATION

T2 P R 1 R
1 2 3 4 5

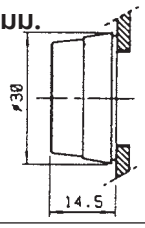
Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	P	Direct power
	L	Simple (Screw terminal in the rear)
	N	Simple (Screw terminal in the side)
3.Shape	R	Round
	S	Square
4.Voltage	1	110V AC (Neon bulb)
	2	220V AC (Neon bulb)
	3	380V AC (Neon bulb)
	4	440V AC (Neon bulb)
	5	6V AC (Filament bulb)
	6	18V AC (Filament bulb)
	7	24V AC (Filament bulb)
	8	30V AC (Filament bulb)
	9	12V AC (Filament bulb)
5.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue

- The upper and lower bases of simple type pilot lamp are one unit and undetachable.
- The mounting holes of square series are ⌀22 mm/⌀25 mm available.

PILOT LAMP (DIRECT POWER) DIMENSIONS

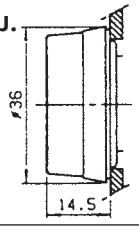
T2PR ไพล็อตแลมป์ต่อตรง 22/25 มม. 165.-





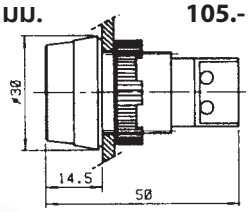
T3PR ไพล็อตแลมป์ต่อตรง 30 มม. 180.-





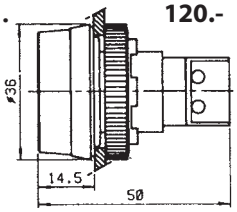
T2LR ไพล็อตแลมป์ต่อตรง 22/25 มม. 105.-





T3LR ไพล็อตแลมป์ต่อตรง 30 มม. 120.-





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tend PILOT LAMP

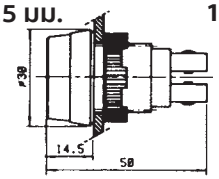
ไพล็อตแลมป์ ชนิดต่อตรง IP65 IEC144

Ø22 / Ø25 / Ø30

PILOT LAMP (DIRECT POWER) DIMENSIONS

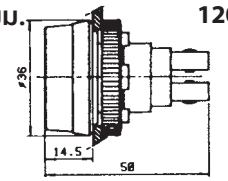
T2NR ไพล็อตแลมป์ต่อตรง 22/25 มม. **105.-**





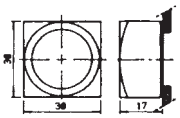
T3NR ไพล็อตแลมป์ต่อตรง 30 มม. **120.-**





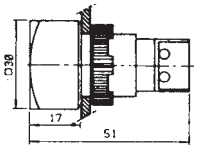
T2PS ไพล็อตแลมป์หัวสี่เหลี่ยมต่อตรง 22/25 มม. **185.-**





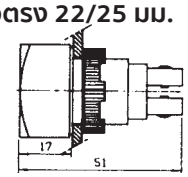
T2LS ไพล็อตแลมป์หัวสี่เหลี่ยมต่อตรง 22/25 มม. **130.-**





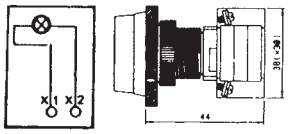
T2NS ไพล็อตแลมป์หัวสี่เหลี่ยมต่อตรง 22/25 มม. **130.-**





TPS-1 คอนแทคบ๊อกสำหรับไพล็อตแลมป์ต่อตรง **120.-**





PILOT LAMP (Ø22 / Ø25 / Ø30) WITH TRANSFORMER

ไพล็อตแลมป์ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น IP65 IEC144 ISO 9002

This series of pilots lamp are equipped with transformer at the secondary voltage of 5V and TS9-5 (6V) bulb used.

MODEL DESIGNATION

T2	TP	R	1	R
1	2	3	4	5

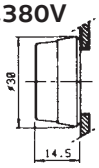
Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	TP	With transformer
3.Shape	R	Round
	S	Square

Designation	Signal	Description
4.Voltage (50-60Hz)	1	110V AC (Neon bulb)
	2	220V AC (Neon bulb)
5.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue

•The mounting holes of square series are Ø22 mm/ Ø25 mm available.

T2TPR ไพล็อตแลมป์ 22/25 มม. 220V,380V **270.-**





T3TPR ไพล็อตแลมป์ 30 มม. 220V,380V **290.-**

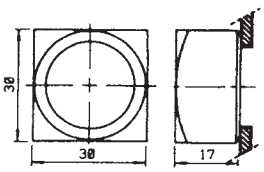




PILOT LAMP DIMENSIONS (ไพล็อตแลมป์ชนิดหม้อแปลง)

T2TPS ไพล็อตแลมป์หัวสี่เหลี่ยม 22/25 มม. 220V,380V **305.-**

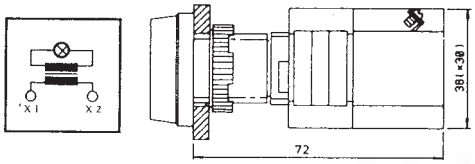




LAMP HOLDER BLOCKS (WITH TRANSFORMER)

TPS-2
380V, 220V **230.-**





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KEY OPERATED PUSH BUTTON SWITCH

สวิตช์กดมีกุญแจ IP65 IEC144

Ø22 / Ø25 / Ø30

The contact block of this series of switches is standard.

MODEL DESIGNATION

T2 KL R 1 1 - 1 C

1 2 3 4 5 6 7

Designation	Signal	Description
1.Mounting hole	T2	Ø22 mm / Ø25 mm
	T3	Ø30 mm
2.Type	KL	Long head
	KM	Mushroom head
3.Shape	R	Round
	S	Square

1.The mounting holes of square series are Ø22 mm/ Ø25 mm available.
2.The symbol for the position where the key is drawn out for key chain return type is blank.
3.The key switching way is 2-sections.

Designation	Signal	Description
4.Movement way	1	1.Key Return Type
		1) It can't be pressed down when it's in still.
		2) It will become return type push button after being pressed down when the key is turned right.
	2	2. Key Chain Type
		1) Press it down when it's in still and it'll become chain type push button.
		2) It will return after being pressed down when the key is turned right.
	3	3. Key Fixing Type
		1)It can't be pressed down when it's in still.
		2) It can be pressed down when the key is turned right.It will be further fixed after the key is turned left.
		3) It will return when the key is turned right.
	4	4. Key Chain Return Type
		1) It will become chain type after being pressed down when the key is in still and will return when the key is turned right.
		2) It will become return push button when the key is turned right and drawn out.
5.Key withdrawable	1	It may be drawn out both in stillness and being turned right.
	2	It may be drawn out in stillness
6.No. of contact blocks fitted	1-3	1-3
7.Type of contact blocks fitted	A	1a(1NO)
	B	1b(1NC)
	C	1a1b(1NO 1NC)

OPERATING HEADS DIMENSIONS

T2KLR สวิตช์กุญแจ 22/25 มม.



	Price
1a,1b,1a1b, 2a,2b	775.-
3a, 3b, 3a3b, 4a,4b	1,005.-
2a2b	885.-
4a4b	1,090.-

T3KLR สวิตช์กุญแจ 30 มม.



	Price
1a,1b,1a1b, 2a,2b	790.-
3a, 3b, 3a3b, 4a,4b	1,020.-
2a2b	900.-
4a4b	1,105.-

T2KMR สวิตช์กุญแจดอกเห็ด 22/25 มม.



	Price
1a,1b,1a1b, 2a,2b	870.-
3a, 3b, 3a3b, 4a,4b	1,100.-
2a2b	980.-
4a4b	1,185.-

T3KMR สวิตช์กุญแจดอกเห็ด 30 มม.



	Price
1a,1b,1a1b, 2a,2b	880.-
3a, 3b, 3a3b, 4a,4b	1,110.-
2a2b	990.-
4a4b	1,195.-

T2KLS สวิตช์กุญแจหัวเหลี่ยม 22/25 มม.



	Price
1a,1b,1a1b, 2a,2b	810.-
3a, 3b, 3a3b, 4a,4b	1,040.-
2a2b	920.-
4a4b	1,125.-

T2KMS สวิตช์กุญแจหัวเหลี่ยมดอกเห็ด 30 มม.



	Price
1a,1b,1a1b, 2a,2b	880.-
3a, 3b, 3a3b, 4a,4b	1,110.-
2a2b	990.-
4a4b	1,195.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

INSULATED ENCLOSURE
บ๊อกพลาสติก IP65 IEC144
Ø22 / Ø25 / Ø30

The mounting holes of this series of insulated enclosures are Ø22 mm/ Ø30 mm .Single-holes insulated enclosures are available in yellow and gray.All the others are in gray.The upper base and contact block are of exclusive type, which is different from those of 22 mm/ Ø30 mm series contact components.

The dimension and type of the upper base are same as those of Ø22 mm/ Ø30 mm series control components.The symbol of this type is : by adding "B" to the type No. of Ø22 mm/ Ø30 mm series control components.For example : T2BFR stands for the upper base of Ø22 flat-head round type push button : and T2BFR-B refers to the exclusive upper base of the insulated enclosures.

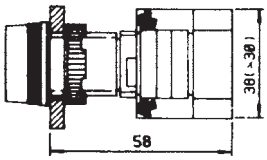
THE ASSEMBLY OF INSULATED ENCLOSURES AND SWITCH

1) Take apart the upper cover and the lower base of the insulated enclosures.
2) Fix the contact block on the lower base, and the upper base on the upper cover.
   (Standard contact block needs underneath packing)
3) Connect the upper cover with the lower base into one kit.
   • The protection structure for this series of insulated enclosures is IP65 (IEC144)
   • All the illuminated switches used in the insulated enclosures are direct type.

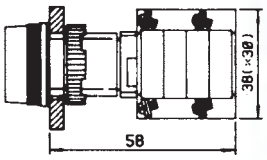
STANDARD CONTACT BLOCK FOR INSULATED ENCLOSURES

● คอนแทคบ๊อก-สวิตช์กด (สำหรับบ๊อกพลาสติก)

TC-B1A TC-B1B TC-B1C (1NO, 1NC, 1NO+1NC)
TC-B2A TC-B2B (2NO, 2NC) **110.-**

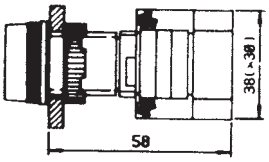
TC-B2C (2NO+2NC) **215.-**

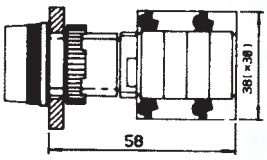
ILLUMINATED CONTACT BLOCK FOR INSULATED ENCLOSURES

● คอนแทคบ๊อก-สวิตช์กด มีไพล็อตแลมป์ (สำหรับบ๊อกพลาสติก)

TC-BI1A TC-BI1B (1NO+1NC) **255.-**

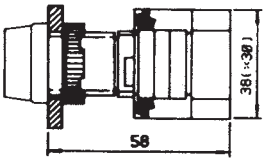
TC-BI1C TC-BI2A (1NO+1NC, 2NO) **255.-**

LAMP HOLDER BLOCKS (FOR INSULATED ENCLOSURES)

● คอนแทคบ๊อก ไพล็อตแลมป์ (สำหรับบ๊อกพลาสติก)

TPS-3 **115.-**

● ฐานเสริมสำหรับคอนแทคบ๊อก (ใช้กับบ๊อกพลาสติก)

NO 2TN2B105 **30.-**
สำหรับสวิตช์กดรุ่น T2 ใช้กับบ๊อก รุ่น TN2



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tend

CONTROL STATION
บ๊อกพลาสติก IP65 IEC144
Ø22 / Ø25 / Ø30

The mounting hole of this series of insulated enclosures is Ø22. The illuminated push button and pilot lamp are all direct type.
The contact of the switches are all 1A1B. The shape is round.
The insulated enclosures of mushroom-head and chain type push button are in yellow or gray. Others in gray.

MODEL DESIGNATION ONE BUTTON

B1 - BF R 1 2
1 2 3 4 5

Designation	Signal	Description
1.No. of button	B1	1 Button
	B2	2 Buttons
	B3	3 Buttons
2.Type	BF	Flat Head Push Button
	BL	Long Head Push Button
	BM	Mushroom Head Push Botton
	BK	Push-Lock Push Button
	KM	Key Push-Lock Mushroom
	IF	Flat Head Illuminated Push Button
	IL	Long Head Illuminated Push Button
	IM	Mushroom Head Illuminated Push Botton
	IK	Push-Lock Illuminated Push Button
	S2	Selector Switch (2 Positions)
	S3	Selector Switch (3 Positions)

Designation	Signal	Description
3.Lens color	R	Red
	G	Green
	B	Black
4.Name plate	1	OFF
	2	ON
	3	EM. STOP
	4	OFF-ON
	5	ON-OFF-ON
5.Voltage	None	Non-Illuminated
	2	220V AC
	7	24V

ONE BUTTON

B1-BFR1 25mm 400.- 30mm 425.-
สวิตช์กดหัวเรียบสีแดง
B1-IFR1 525.- 535.-
สวิตช์กดหัวเรียบมีไพล็อตแลมป์สีแดง



B1-BFG2 25mm 400.- 30mm 425.-
สวิตช์กดหัวเรียบสีเขียว
B1-IFG2 525.- 535.-
สวิตช์กดหัวเรียบมีไพล็อตแลมป์สีเขียว



B1-BLR1 25mm 420.- 30mm 435.-
สวิตช์กดหัวหัวนูนสีแดง
B1-ILR1 535.- 545.-
สวิตช์กดหัวนูนมีไพล็อตแลมป์สีแดง



B1-BLG2 25mm 420.- 30mm 435.-
สวิตช์กดหัวหัวนูนสีเขียว
B1-ILG2 535.- 545.-
สวิตช์กดหัวนูนมีไพล็อตแลมป์สีเขียว



B1-BMR3 25mm 425.- 30mm 440.-
สวิตช์กดหัวหัวเห็ดสีแดง
B1-IMR3 570.- 580.-
สวิตช์กดหัวเห็ดมีไพล็อตแลมป์สีแดง



B1-BKR3 25mm 510.- 30mm 520.-
สวิตช์กดล็อคสีแดง
B1-IKR3 635.- 660.-
สวิตช์กดล็อคมีแลมป์สีแดง



B1-KMR3 25mm 1,100.- 30mm 1,115.-
สวิตช์กุญแจดอกเห็ดสีแดง



B1-S2B4 25mm 460.- 30mm 470.-
สวิตช์ลูกศร ON-OFF



B1-S3B5 25mm 460.- 30mm 470.-
สวิตช์ลูกศร ON-OFF-ON



TWO BUTTON

(บ๊อกพลาสติก 2 ช่อง พร้อมสวิตช์)

B2-BF สวิตช์กดหัวเรียบ ON-OFF
B2-IF2 สวิตช์กดมีไพล็อตแลมป์หัวเรียบ ON-OFF 220V
B2-IF7 สวิตช์กดมีไพล็อตแลมป์หัวเรียบ ON-OFF 24V

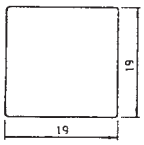


Type	Name plate		Buttons	Voltage	25mm	30mm
B2-BF	ON	OFF	2 Flat Head Push Buttons	-	685.-	705.-
B2-IF2	ON	OFF	2 Flat Head Illuminated Push Buttons	220V AC	920.-	950.-
B2-IF7	ON	OFF	2 Flat Head Illuminated Push Buttons	24V	920.-	950.-

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NAME PLATE
ป้ายชื่อ IP65 IEC144
Ø22 / Ø25 / Ø30

PLATES FOR ENCLOSURES
TBP (TBP-08 / TBP-09)



ราคาแผ่นละ 10 บาท

FOR PUSH BUTTON, ILLUMINATED PUSH BUTTON, PILOT LAMP

TBP-01	TBP-02	TBP-03	TBP-04	TBP-05	TBP-06	TBP-07	TBP-08	TBP-09	TBP-10
○	I	II	III	IV	ON	OFF	START	STOP	UP
TBP-11	**TBP-12**	**TBP-13**	**TBP-14**	**TBP-15**	**TBP-16**	**TBP-17**	**TBP-18**	**TBP-19**	**TBP-20**
DOWN*	SOURCE	HAND	AUTO	RUN	FWD	REV	CLOSE	OPEN	FAST
TBP-21	**TBP-22**	**TBP-23**	**TBP-24**	**TBP-25**	**TBP-26**	**TBP-27**	**TBP-28**	**TBP-29**	**TBP-30**
SLOW*	RESET	EM STOP	12V	24V	30V	110V	220V	B	1
TBP-31	**TBP-32**	**TBP-33**	**TBP-34**	**TBP-35**	**TBP-36**	**TBP-37**	**TBP-38**		
2	3	4	5	6	7	8	9		

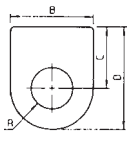
FOR SELECTOR SWITCH

TBP-51	TBP-52	TBP-53	TBP-54	TBP-55	TBP-56	TBP-57	TBP-58	TBP-59	TBP-60
○	II	II ○	III	ON OFF	ON ON	ON OFF ON	REV FWD	REV OFF FWD	AUTO HAND
TBP-61	**TBP-62**	**TBP-63**	**TBP-64**	**TBP-65**	**TBP-66**	**TBP-67**			
AUTO OFF HAND	START STOP	UP DOWN	UP OFF DOWN	1 2	1 0 2	1 2 3			

LEGEND PLATES FOR (Ø22/ Ø25/ Ø30) OPERATING DEVICES
(Ø22) T22P
(Ø25) T25P
(Ø30) T30P

ราคาแผ่นละ 15 บาท





Type	Dimensions			
	A	B	C	D
T22P	ø22	31	27	42
T25P	ø25	31	27	42
T30P	ø30	38.5	32.5	52

FOR PUSH BUTTON, ILLUMINATED PUSH BUTTON, PILOT LAMP, T22P---,T25P--,T30P--

06	07	08	09	10	11	12	13	14	15	16	17
ON	OFF	START	STOP	UP	DOWN	SOURCE	HAND	AUTO	RUN	FWD	REV

FOR PUSH BUTTON, ILLUMINATED PUSH BUTTON, PILOT LAMP, T22P---,T25P--,T30P--

51	52	53	54	55	56	57	58
○ I	I II	I ○ I	I II III	OFF ON	ON NO	ON OFF ON	FWD REV

FOR PUSH BUTTON, ILLUMINATED PUSH BUTTON, PILOT LAMP, T22P---,T25P--,T30P--

59	60	61	62
FWD OFF REV	AUTO HAND	AUTO OFF HAND	STOP START

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

PUSH BUTTON SWITCH
สวิตช์กด
Ø25 / Ø30

ISO 9002 CE

MODEL DESIGNATIONS

TBFM - 25 A R
1 2 3 4

CHARACTERISTICS

Operating speed	0.01 mm to 1 m/ sec
Operating frequency	Mechanically : 240 operations/ min. Electrically : 20 operations/ min.
Contact resistance	15 mΩ max.(initial)
Insulation resistance	100 MΩ min.(at 500V DC)
Service life	Mechanically : 20,000,000 operations Electrically : 500,000 operations

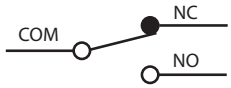
SPECIFICATIONS RATING

Rated voltage (V)	Noninductive load (A)				inductive load (A)				Inrush current (A)	
	Resistive load		Lamp load		Inductive load		Motor load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	15		3	1.5	15		5	2.5	30 max	15 max
250VAC	15		2.5	1.25	15		3	1.5		
500VAC	3		1.5	0.75	2.5		1.5	0.75		
8VAC	15		3	1.5	15		5	2.5		
14VAC	15		3	1.5	10		5	2.5		
30VAC	6 (2)		3	1.5	5		5	2.5		
125VAC	0.4		0.4	0.4	0.05		0.05	0.05		
250VAC	0.2		0.2	0.2	0.03		0.03	0.03		

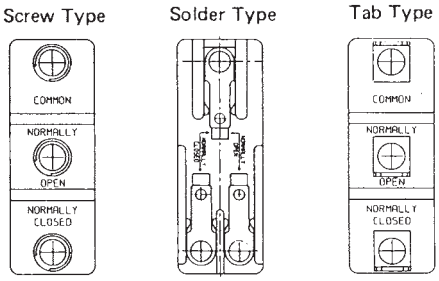
15A 250V AC UL Approved micro switch

Designation	Signal	Description
1.Type	TBFM	Flat Head
	TBLM	Long Head
	TBMM	Mushroom Head
2.Mounting hole	25	Ø25 mm
	30	Ø30 mm
3.Terminal type	B	Screw Terminal
	A	Solder Terminal
	C	Tab Terminal
4.Lens color	R	Red
	G	Green
	Y	Yellow
	B	Black
	W	White

CONTACT CONFIGULATION

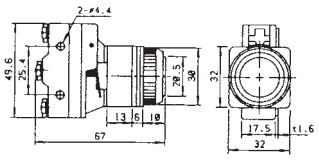


TERMINAL TYPE



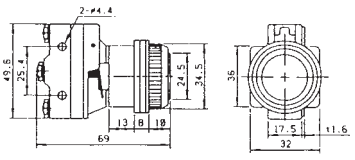
TBFM-25 สวิตช์กดหัวเรียบ **350.-**





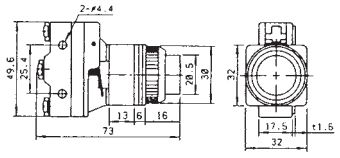
TBFM-30 สวิตช์กดหัวเรียบ **360.-**





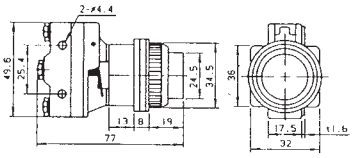
TBLM-25 สวิตช์กดหัวนูน **330.-**





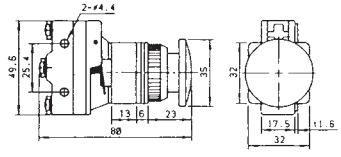
TBLM-30 สวิตช์กดหัวนูน **345.-**





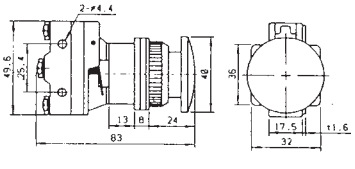
TBMM-25 สวิตช์ดอกเห็ดกดไม่ล็อค **470.-**





TBMM-30 สวิตช์ดอกเห็ดกดไม่ล็อค **480.-**





TBKM-25 สวิตช์ดอกเห็ดกดล็อค **645.-**
TBKM-30 **655.-**



TSSM-25 สวิตช์ลูกศร **590.-**
TSSM-30 **600.-**



tend PUSH BUTTON SWITCH
สวิตช์กด
Ø25 / Ø30

ISO 9002 CE

MODEL DESIGNATIONS

TBF - 25 1 a R
① ② ③ ④ ⑤

- **Note : TBD, TBMR, TBDR are 30 mm only.**

SPECIFICATIONS CURRENT RATINGS

Alternate current	**AC125V**	**AC250V**	**AC500V**	**AC600V**
	10 A	6 A	3 A	2 A
Direct current	**DC125A**	**DC250A**	**DC600A**	
	2 A	1 A	0.4 A	

Dielectric Strength : AC220V for duration of one minute.
Insulation Resistance : Over 100MΩ @DC500V

Temperature Rise :
At Contacts Less than 30 degrees.
At Terminals Less than 25 degrees.
(@ Ambient temperature of 40˚C,
and a continuous current of 10 amperes)
Contact Resistance : Less than 30mΩ
Ambient Temperature Allowable : -20˚C ~ 60˚C

Designation	Signal	Description
1.Type	TBF	Flat Head
	TBL	Long Head
	TBM	Mushroom Head
	TBW	Rainproof
	TBK	Push-Lock
	TBKL	Push-Lock (Large Head)
	TBD	Special Duty
	TBMR	Mushroom Head with Guard Ring
	TBDR	Special Duty with Guard Ring
2.Mounting hole	25	Ø25 mm
	30	Ø30 mm
3.No.of contact blocks fitted	1 ~ 4	1~4
4.Type of contact blocks fitted	(None)	1a1b (1NO 1NC)
	a	1a (1NO)
	b	1b (1NC)
5.Head color	R	Red
	G	Green
	Y	Yellow
	B	Black
	W	White

CONTACT BLOCK



TBC-1A 75.-



TBC-1B 75.-

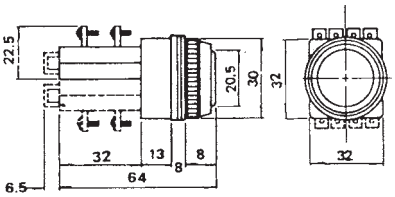


TBC-1A1B 80.-

Type	H	L	W
1A 1B	25	35	32.5
1A or 1B	25	26	32.5

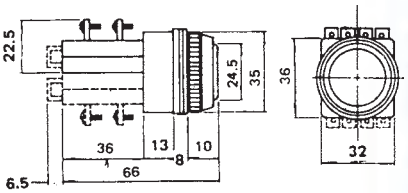
TBF-251 Ø25 mm สวิตช์กดหัวเรียบ 1A1B 105.-
1A, 1B 100.-





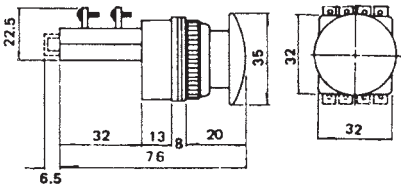
TBF-301 Ø30 mm สวิตช์กดหัวเรียบ 1A1B 120.-
1A, 1B 115.-





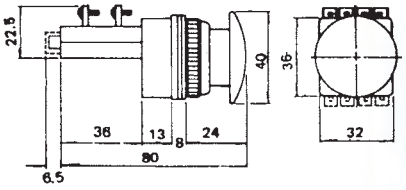
TBM-251 Ø25 mm สวิตช์กดไม่ล็อคดอกเห็ด 1A1B 135.-
1A, 1B 130.-





TBM-301 Ø30 mmสวิตช์กดไม่ล็อคดอกเห็ด 1A1B 135.-
1A, 1B 130.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

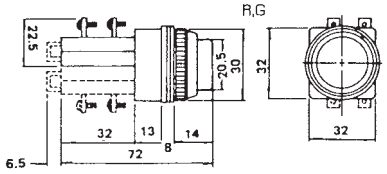
PUSH BUTTON SWITCH

สวิตช์กด

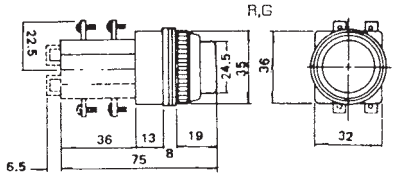
Ø25 / Ø30

ISO 9002 CE

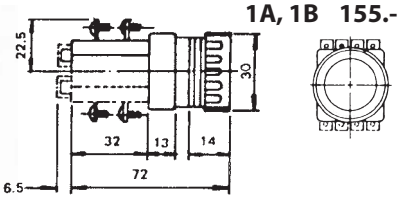
TBL-251 สวิตช์หัวกดนูน **1A1B 115.-**
Ø25 mm **1A, 1B 110.-**

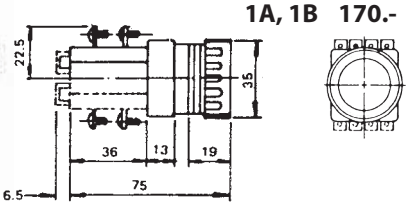
TBL-301 สวิตช์กดหัวนูน **1A1B 130.-**
Ø30 mm **1A, 1B 125.-**

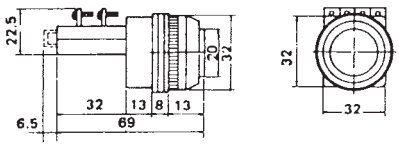
TBR-251 สวิตช์หัวกดนูนชนิดมีการ์ด **1A1B 160.-**
Ø25 mm **1A, 1B 155.-**

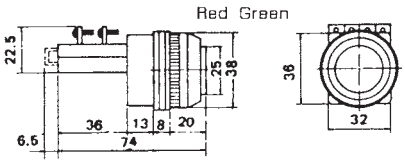
TBR-301 สวิตช์กดหัวนูนชนิดมีการ์ด **1A1B 175.-**
Ø30 mm **1A, 1B 170.-**

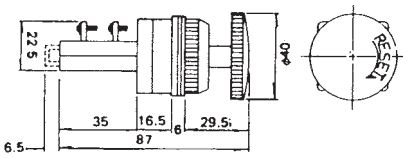
TBW-251 สวิตช์กดกันน้ำ **1A1B 155.-**
Ø25 mm **1A, 1B 150.-**

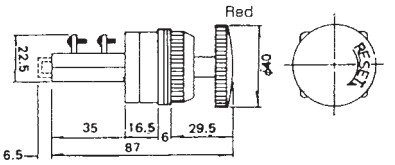
TBW-301 สวิตช์กดกันน้ำ **1A1B 175.-**
Ø30 mm **1A, 1B 170.-**

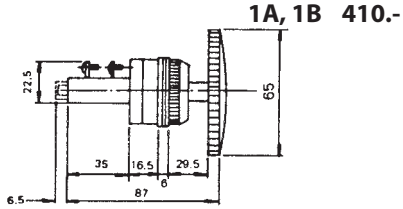
TBK-251 สวิตช์กดล็อคดอกเห็ด **1A1B 260.-**
Ø25 mm **1A, 1B 255.-**

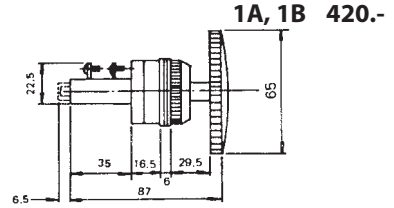
TBK-301 สวิตช์กดล็อคดอกเห็ด **1A1B 270.-**
Ø30 mm **1A, 1B 265.-**

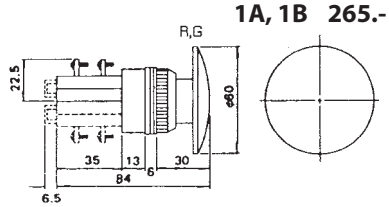
TBKL-251 สวิตช์กดล็อคดอกเห็ดใหญ่ **1A1B 415.-**
Ø25 mm **1A, 1B 410.-**

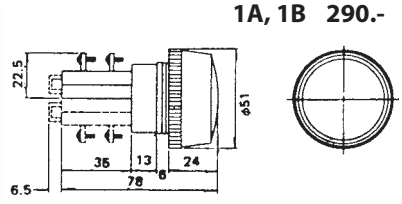
TBKL-301 สวิตช์กดล็อคดอกเห็ดใหญ่ **1A1B 425.-**
Ø30 mm **1A, 1B 420.-**

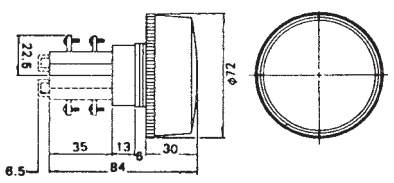
TBD-301 สวิตช์หัวเห็ด **1A1B 270.-**
Ø30 mm **1A, 1B 265.-**

TBMR-301 สวิตช์หัวเห็ดแบบมีการ์ด **1A1B 295.-**
Ø30 mm **1A, 1B 290.-**

TBDR-301 สวิตช์หัวเห็ดใหญ่แบบมีการ์ด **1A1B 425.-**
Ø30 mm **1A, 1B 420.-**

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

SELECTOR SWITCH / KEY SWITCH

สวิตช์ลูกศร / สวิตช์กุญแจ

Ø25 / Ø30

ISO 9002

MODEL DESIGNATIONS

TSS - 25 1 a 2 B

1 2 3 4 5 6

SPECIFICATIONS CURRENT RATINGS

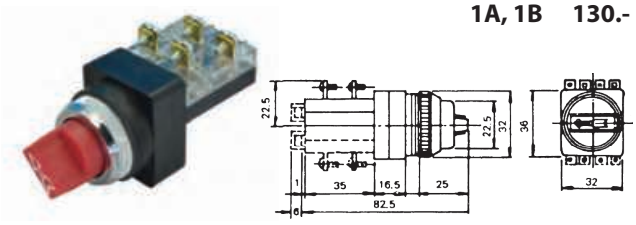
Alternate current	AC125V	AC250V	AC500V	AC600V
	10A	6A	3A	2A
Direct current	**DC125V**	**DC250V**	**DC600V**	
	2A	1A	0.4A	

Dielectric Strength : AC220V for duration of one minute.
Insulation Resistance : Over 100MΩ @DC500V

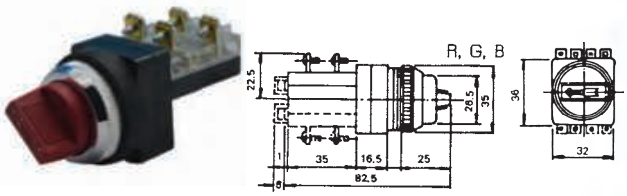
Temperature Rise :
At Contacts Less than 30 degrees.
At Terminals Less than 25 degrees.
(@ Ambient temperature of 40˚C,
and a continuous current of 10 amperes)
Contact Resistance : Less than 30mΩ
Ambient Temperature Allowable : -20˚C ~ 60˚C

Designation	Signal	Description	
1.Type	TSS	Knob Type Selector Switch	
	TKS	Key Type Selector Switch	
	TSSL	Long Type Selector Switch	
2.Mounting hole	25	Ø25 mm	
	30	Ø30 mm	
3.No. of contact blocks fitted	1 - 4	1 - 4	
4.Type of contact blocks fitted	(None)	1a1b(1NO 1NC)	
	a	1a(1NO)	
	b	1b(1NC)	
5.Positions	2	2 Positions	
	3	3 Positions	
6.Knob color	R	Red	(Knob Type Only)
	G	Green	
	B	Black	

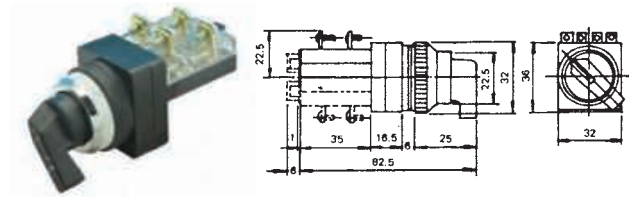
TSS-251 สวิตช์ลูกศรก้านสั้น Ø25 mm 1A1B 135.-
TSS-251-2 ON-OFF 1A, 1B 130.-
TSS-251-3 ON-OFF-ON 1A1B 135.-
1A, 1B 130.-



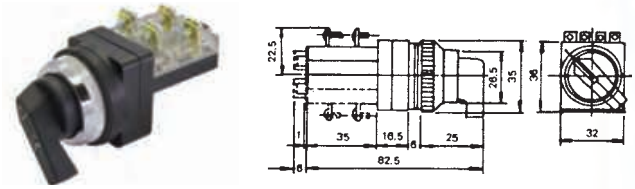
TSS-301 สวิตช์ลูกศรก้านสั้น Ø30 mm 1A1B 135.-
TSS-301-2 ON-OFF 1A, 1B 130.-
TSS-301-3 ON-OFF-ON 1A1B 135.-
1A, 1B 130.-



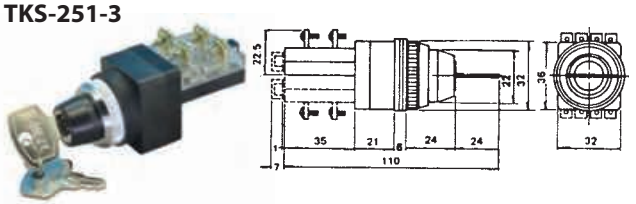
TSSL-251 สวิตช์ลูกศรก้านยาว Ø25 mm 1A1B 135.-
TSSL-251-2 1A, 1B 130.-
TSSL-251-3



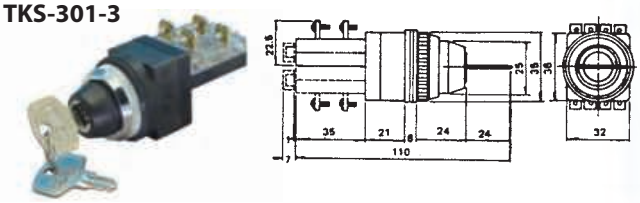
TSSL-301 สวิตช์ลูกศรก้านยาว Ø30 mm 1A1B 150.-
TSSL-301-2 1A, 1B 145.-
TSSL-301-3



TKS-251 สวิตช์กุญแจ Ø25 mm 1A1B 525.-
TKS-251-2 1A, 1B 520.-
TKS-251-3



TKS-301 สวิตช์กุญแจ Ø30 mm 1A1B 540.-
TKS-301-2 1A, 1B 535.-
TKS-301-3



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

PILOT LAMP
ไพล็อตแลมป์ ชนิดหม้อแปลง
Ø25 / Ø30

ISO 9002

MODEL DESIGNATIONS

TPR - 25 2 R

1 2 3 4

Classification	Bulb type			Price
Ø25 mm				
TPR Series TPF Series TPS Series	E-10	6.3 V	0.15 A	**12.-**
	E-10	12 V	1 W	**16.-**
	E-10	24 V	1 W	**17.-**
	E-10	30 V	1 W	**22.-**
	E-10	110 V	1 W	**41.-**
Ø30 mm				
TPR Series TPF Series TPS Series TPL Series	E-12	18 V	0.11 A	**22.-**
	E-12	24 V	1 W	**22.-**
	E-12	30 V	1 W	**22.-**
	E-12	110 V, 220 V	1 W	**56.-**
	E-12	380 V	1 W	-

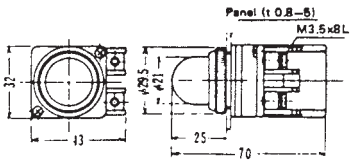
Dielectric Strength :
AC 220V for duration of one minute.
Insulation Resistance :
Over 100 megaohm @ DC 500 V

Designation	Signal	Description	
1.Type	TPR	Round Type	
	TPS	Square Type	
	TPF	Flat Type	
	TPL	Large Type	
	TPRF	Flash Type (Round)	
	TPSF	Flash Type (Square)	
	TPLF	Flash Type (Large)	
2.Mounting hole	25	Ø25 mm	
	30	Ø30 mm	
3.Rated voltage	1	110V AC	
	2	220V AC	
	3	380V AC	
	4	440V AC	
	5	6.3V AC (DC)	Without Transformer
	6	18V AC (DC)	
	7	24V AC (DC)	
	8	30V AC (DC)	
4.Lens color	R	Red	
	G	Green	
	O	Orange	
	W	White	
	BL	Blue	

DIMENSIONS

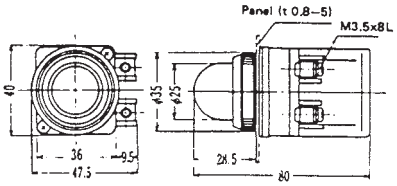
TPR-252 ไพล็อตแลมป์ R, G, Y, B, W 220V 140.-
Ø25 mm 380V 150.-





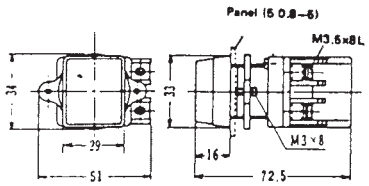
TPR-302 ไพล็อตแลมป์ R, G, Y, B, W 220V 185.-
Ø30 mm 380V 195.-





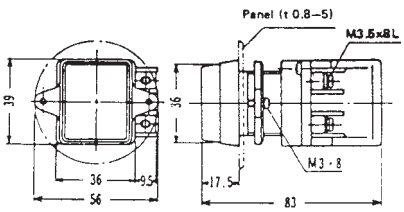
TPS-252 ไพล็อตแลมป์หัวเหลี่ยม R, G, Y, W 220V 210.-
Ø25 mm





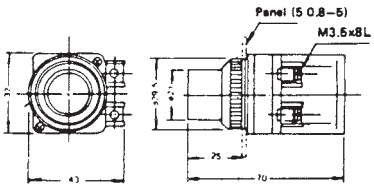
TPS-302 ไพล็อตแลมป์หัวเหลี่ยม R, G, Y, W 220V 215.-
Ø30 mm





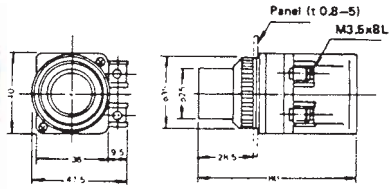
TPF-252 ไพล็อตแลมป์หัวตัด R, G, Y 220V 180.-
Ø25 mm





TPF-302 ไพล็อตแลมป์หัวตัด R, G, Y 220V 190.-
Ø30 mm





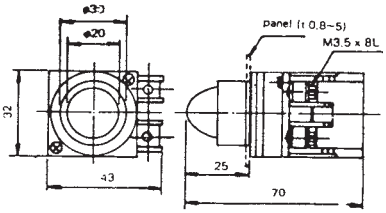
tend

PILOT LAMP / FLASH LAMP
ไพล็อตแลมป์ / แฟรชแลมป์ ชนิดหม้อแปลง
Ø25 / Ø30

ISO 9002

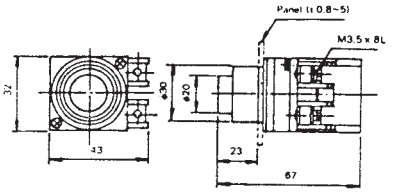
TPRR-252 ไพล็อตแลมป์ชนิดมีการ์ด 190.-
Ø25 mm





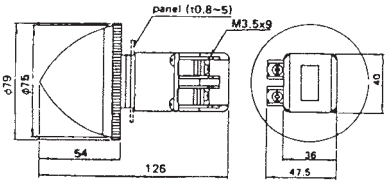
TPFR-252 ไพล็อตแลมป์หัวตัดชนิดมีการ์ด 225.-





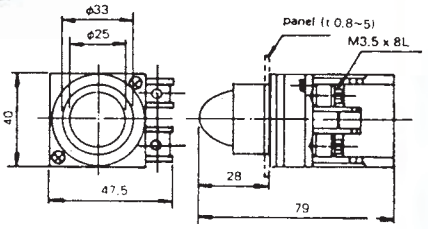
TPL-302 ไพล็อตแลมป์หัวตัดชนิดหัวกลม 475.-





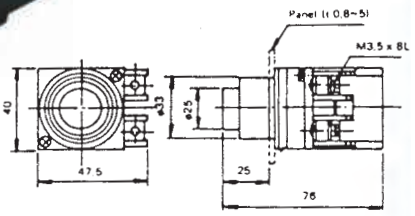
TPRR-302 ไพล็อตแลมป์ชนิดมีการ์ด 205.-





TPFR-302 ไพล็อตแลมป์หัวตัดชนิดมีการ์ด 225.-

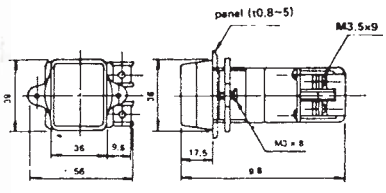




FLASH LAMP
ไฟกะพริบ

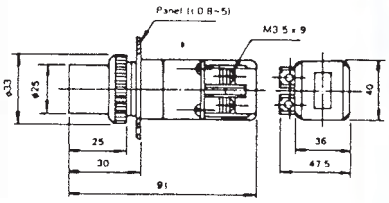
TPSF-302 ไพล็อตแลมป์ชนิดกะพริบหัวเหลี่ยม 705.-





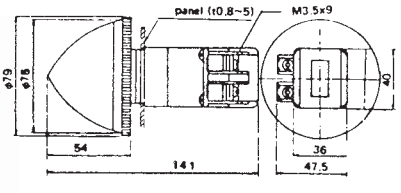
TPFF-302 ไพล็อตแลมป์ชนิดกะพริบหัวตัด 805.-





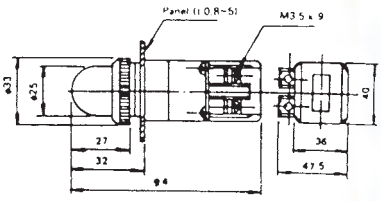
TPLF-302 ไพล็อตแลมป์ชนิดกะพริบหัวใหญ่ 915.-





TPRF-302 ไพล็อตแลมป์ชนิดกะพริบ 675.-





หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

PILOT LAMP
ไพล็อตแลมป์ ชนิดต่อตรง
Ø25 / Ø30

ISO 9002

These types of Pilot lamps are direct type, without transformers. AC 110V, AC 220V, AC 380V, AC 440V are Neon lamps.

MODEL DESIGNATIONS

TPNR - 25 2 R

1 2 3 4

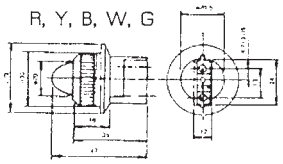
TPN-11, TPN-15 series are 110V AC, 220V AC only.

Designation	Signal	Description
1.Type	TPNR	Round neon lamp
	TPNF	Flat neon lamp
	TPNRR	Round type (with ring)
	TPNFR	Flat type (with ring)
	TPNS	Square neon lamp
2.Mounting hole	11	Ø11 mm
	12	Ø12 mm
	15	Ø15 mm
	16	Ø16 mm
	25	Ø25 mm
	30	Ø30 mm
3.Rated voltage	1	110V AC
	2	220V AC
	3	380V AC
	4	440V AC
	5	6.8V AC (DC)
	6	18V AC (DC)
	7	24V AC (DC)
	8	30V AC (DC)
	9	12V AC (DC)
4.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue

DIMENSIONS

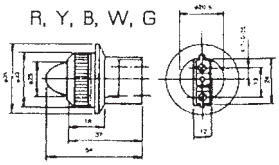
TPNR-252 ไพล็อตแลมป์ชนิดต่อตรง 95.-
Ø25 mm (R, Y, B, W, G)





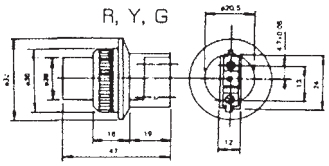
TPNR-302 ไพล็อตแลมป์ชนิดต่อตรง 105.-
Ø30 mm (R, Y, B, W, G)





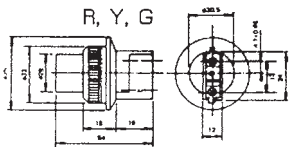
TPNF-252 ไพล็อตแลมป์ชนิดต่อตรง 100.-
Ø25 mm (R, Y, G, BL, W)





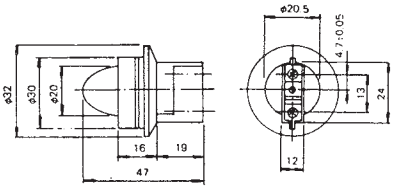
TPNF-302 ไพล็อตแลมป์ชนิดต่อตรง 110.-
Ø30 mm (R, Y, G, BL, W)





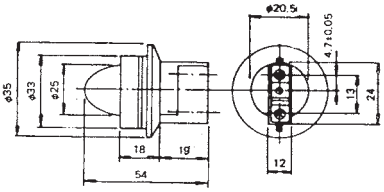
TPNRR-252 ไพล็อตแลมป์ชนิดต่อตรงมีการ์ด 110.-





TPNRR-302 ไพล็อตแลมป์ชนิดต่อตรงมีการ์ด 125.-





หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

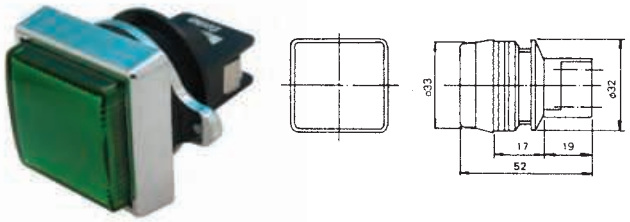
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

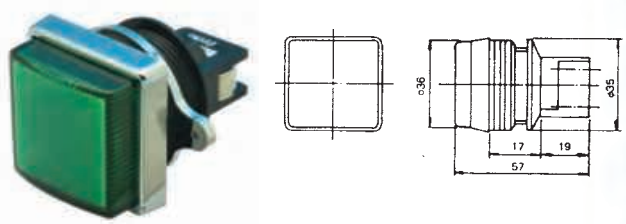
PILOT LAMP / FLASH LAMP
ไพล็อตแลมป์ ชนิดต่อตรง / แฟรชแลมป์
Ø25 / Ø30

ISO 9002

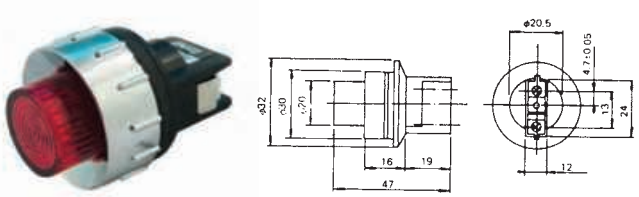
TPNS-252 ไพล็อตแลมป์ชนิดต่อตรงแบบหัวเหลี่ยม 170.-



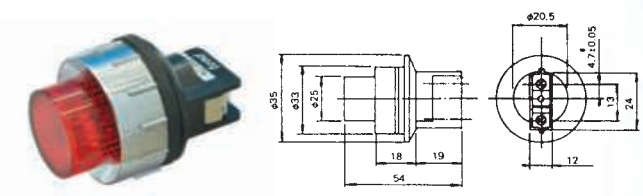
TPNS-302 ไพล็อตแลมป์ชนิดต่อตรงแบบหัวเหลี่ยม 180.-



TPNFR-252 ไพล็อตแลมป์ชนิดต่อตรงหัวตัดมีการ์ด 115.-

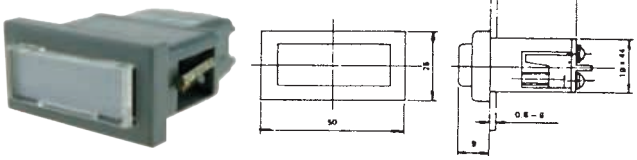


TPNFR-302 ไพล็อตแลมป์ชนิดต่อตรงหัวตัดมีการ์ด 130.-



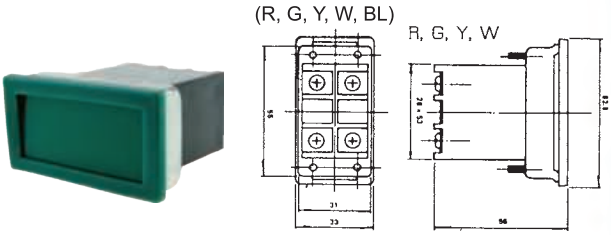
FLASH LAMP
ไฟกะพริบ

TSL-25 Mounting hole 20x45 mm -
220V, 24V



TSL-36 Mounting hole 29x53 mm
220V, 24V

TSL-36-1 1 Lamp ชนิด 1 หลอด 460.-
TSL-36-2 2 Lamp ชนิด 2 หลอด 480.-



หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ ชนิดหม้อแปลง

Ø25 / Ø30

ISO 9002

MODEL DESIGNATION

TIB - 25 2 R

① ② ③ ④

Designation	Signal	Description	
1.Type	TIB	Standard	
	TIBN	Standard (Neon Lamp)	
	TIBR	With Ring	
	TIBNR	With Ring (Neon Ring)	
2.Mounting hole	25	Ø25 mm	
	30	Ø30 mm	
3.Rated voltage	1	110V AC	
	2	220V AC	
	3	380V AC	
	4	440V AC	
	5	6.3V AC (DC)	Without Transformer
	6	18V AC (DC)	
	7	24V AC (DC)	
	8	30V AC (DC)	
4.Lens color	R	Red	
	G	Green	
	O	Orange	
	W	White	

SPECIFICATIONS CURRENT RATINGS

Alternate current	AC125V	AC250V	AC500V	AC600V
	10 A	6 A	3 A	2 A
Direct current	DC125V	DC250V	DC600V	
	2 A	1 A	0.4 A	

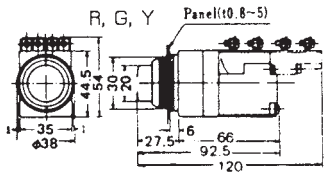
Dielectric Strength : AC220V for duration of one minute.
Insulation Resistance : Over 100MΩ @DC500V

Temperature Rise :
At Contacts Less than 30 degrees.
At Terminals Less than 25 degrees.
(@ Ambient temperature of 40˚C,
and a continuous current of 10 amperes)
Contact Resistance : Less than 30mΩ
Ambient Temperature Allowable : -20˚C ~ 60˚C

DIMENSIONS

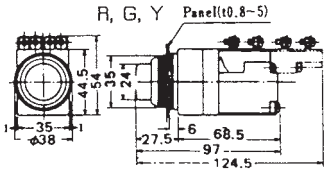
TIB-252 สวิตช์กดมีไฟชนิดใช้หม้อแปลง (R, G, Y) **335.-**





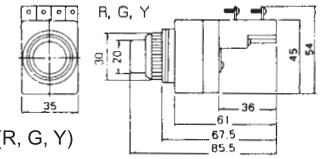
TIB-302 สวิตช์กดมีไฟชนิดใช้หม้อแปลง (R, G, Y) **365.-**





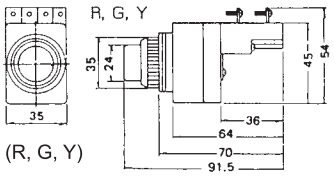
TIBN-252 สวิตช์กดมีไฟชนิดต่อตรง 1A1B **275.-** 1A, 1B **270.-**





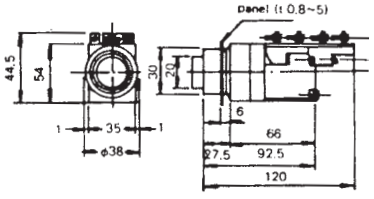
TIBN-302 สวิตช์กดมีไฟชนิดต่อตรง 1A1B **285.-** 1A, 1B **280.-**





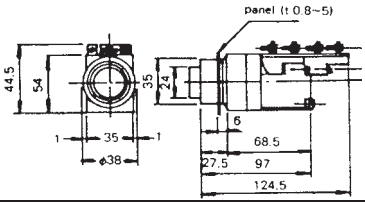
TIBR-252 สวิตช์กดมีไฟชนิดใช้หม้อแปลงมีการ์ด **350.-**





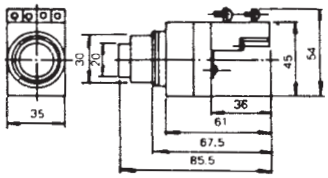
TIBR-302 สวิตช์กดมีไฟชนิดใช้หม้อแปลงมีการ์ด **375.-**





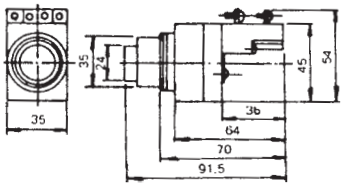
TIBNR-252 สวิตช์กดมีไฟชนิดต่อตรงมีการ์ด 1A1B **295.-** 1A, 1B **290.-**





TIBNR-302 สวิตช์กดมีไฟชนิดต่อตรงมีการ์ด 1A1B **315.-** 1A, 1B **310.-**





หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

METAL PUSH BUTTON SWITCH
สวิตช์กดโลหะ
Ø19

MODEL DESIGNATION

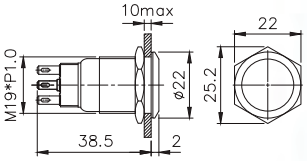
TT19 AB 1
① ② ③

Designation	Signal	Description
1.Mounting Hole	TT19	19 mm Series
2.Type	AB	Metal Push Button(Alternate)
	MB	Metal Push Button(Momentary)
3.Contact blocks	1	1a1b
	2	2a2b

DIMENSIONS

TT19-AB/MB
TT19-AB **815.-**
TT19-MB **795.-**





MODEL DESIGNATION

TT19 SL R 1 1 1
① ② ③ ④ ⑤ ⑥

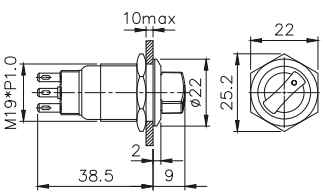
Designation	Signal	Description
1.Mounting hole	TT19	19 mm Series
2.Type	SL	Illuminated Metal Selector Switch
	SS	Metal Selector Switch
3.Lens color	R	Red
	G	Green
	Y	Yellow
	O	Orange
	W	White
	B	Blue
	Blank	No Lights

Designation	Signal	Description	
4.Positions	1	 90° 2-Position	
	7	 90° 3-Position	
5.Voltage	1	110V AC LED lamp	
	2	220V AC LED lamp	
	5	6V LED lamp	
	7	24V LED lamp	
	9	12V LED lamp	
	Blank	No Light	
6.Type of contact blocks fitted		2-Position	3-Position
	1	1a1b (1NO 1NC)	–
	2	2a2b (2NO 2NC)	1a1b 0 1a1b

DIMENSIONS

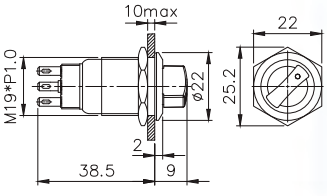
TT19-SL





TT19-SS
2 Position (110V) **985.-**
2 Position (220V) **1,090.-**
3 Position (220V) **1,090.-**





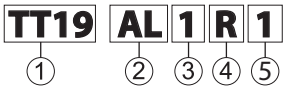
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED METAL PUSH BUTTON SWITCH

สวิตช์กดโลหะมีแลมป์

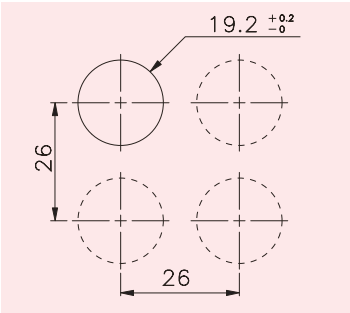
Ø19

MODEL DESIGNATION

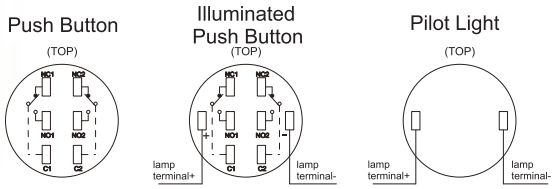


Designation	Signal	Description
1.Mounting hole	TT19	19 mm series
2.Type	AL	Illuminated metal push button (Alternate)
	ML	Illuminated metal push button (Momentary)
	PL	Pilot lamp
3.Voltage	1	110V AC LED lamp
	2	220V AC LED lamp
	5	6V LED lamp
	7	24V LED lamp
	9	12V LED lamp
4.Lens color	R	Red
	G	Green
	Y	Yellow
	O	Orange
	W	White
	BL	Blue
5.Contact blocks	1	1a1b (1NO 1NC)
	2	2a2b (2NO 2NC)

PANEL CUT-OUT



TERMINAL ARRANGMENT



CHARACTERISTICS

Contact resistance	50 mΩ max. (Initial)
Insulation resistance	100 MΩ min. (At 500V DC)
Dielectric strength	1000V AC, 50/60 Hz for 1 minute between non-continuous terminals 2000V AC, 50/60 Hz for 1 minute between current-carrying part and ground
Vibration	Mechanical durability : 10 to 55Hz 1.5 mm double amplitube
Shock	Mechanical durability : Approx : 500 m/ sec² (approx.50G's) Mechanical durability : Approx : 500 m/ sec² (approx.50G's)
Ambient operation temperature	Operating : -25˚C to 55˚C Storage : -30˚C to 80˚C
Humidity	45% to 80% RH
Mechnical life (min)	Momentary : 2,000,000 operations Alternate : 250,000 operations
Electric life (min)	Momentary : 100,000 operations (1,800 operations/ hour) Alternate : 100,000 operations (1,200 operations/ hour)
Nut torque value	14 Nm (140 Kgf.cm) max.

CONTACT RATINGS

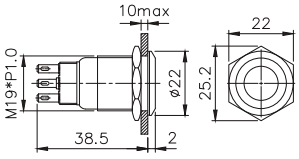
Rated insulation voltage			250VAC		125VAC
Rated continuous current (A)			3A		5A
Rated operating current (A)					
AC			DC		
Voltage	AC13	AC12	Voltage	DC13	DC12
110V 220V	0.7A 0.5A	1A 0.5A	12V 24V	0.7A 0.7A	1A 1A

AC13/DC13:Inductive load; AC12/DC12:Resistive load

DIMENTIONS

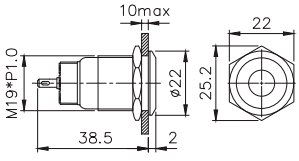
TT19-AL/ML **920.-**
TT19-AL **890.-**
TT19-ML





TT19-PL **660.-**





PUSH BUTTON SWITCH
สวิตช์กด IP44 IP65
Ø16

TT16 - AB R 4 R 1
1 2 3 4 5 6

MODEL DESIGNATION

BK/BKL only Round and Red.

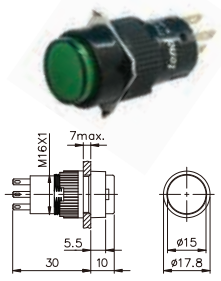
Designation	Signal	Description
1.Mounting hole	TT16	Ø16 mm Series
2.Type	AB	Push Button (Alternate)
	MB	Push Button (Momentary)
	MM	Push Button (Momentary)(Mushroom Head)
	BK	Push-lock Turn-Reset
	BKL	Push-lock Turn-Reset (Mushroom Head)
3.Shape	R	Round
	S	Square
	L	Rectangular
4.Operator protection	4	IP40
	6	IP65
5.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
	B	Black
6.Contact blocks	1	1a1b(1NO 1NC)
	2	2a2b(2NO 2NC)

CHARACTERISTICS

Contact resistance	50 mΩ max. (intial)
Insulation resistance	100 MΩ min. (at 500V DC)
Dielectric strength	1000V AC, 50/ 60 Hz for 1 minute between non-continuous terminals 2000V AC, 50/ 60 Hz for 1 minute current-carrying part and ground.
Vibration	Mechanical durability : 10 to 55 Hz 1.5 mm double amplitube
Shock	Mechanical durability : Approx. 500 m/ sec² (approx. 50 G's) Malfunction durability : Approx. 500 m/ sec² (approx. 50G's)
Ambient operating temperature	Operating : -25°C to 55°C Storange : -30°C to 80°C
Humidity	45% to 80% RH
Mechanical life (min)	Momentary : 2,000,000 Alternate/ BKR : 250,000
Electrical life (min)	Momentary : 100,000 (1,800 operations/ hour) Alternate/ BKR : 100,000 (1,200 operations/ hour)

DIMENSION

TT16-ABR/MBR



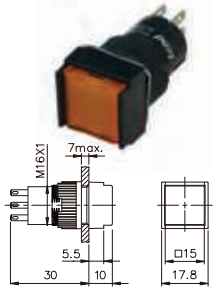
TT16-ABR รุ่นกดล็อค

Type	IP	Contact	Price
TT16-ABR	IP44	1NO 1NC	410.-
TT16-ABR	IP44	2NO 2NC	540.-
TT16-ABR	IP65	1NO 1NC	520.-
TT16-ABR	IP65	2NO 2NC	645.-

TT16-MBR รุ่นกดไม่ล็อค

Type	IP	Contact	Price
TT16-MBR	IP44	1NO 1NC	290.-
TT16-MBR	IP44	2NO 2NC	470.-
TT16-MBR	IP65	1NO 1NC	480.-
TT16-MBR	IP65	2NO 2NC	600.-

TT16-ABS/MBS



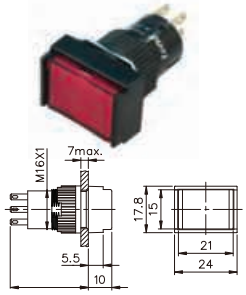
TT16-ABS รุ่นกดล็อค

Type	IP	Contact	Price
TT16-ABS	IP44	1NO 1NC	410.-
TT16-ABS	IP44	2NO 2NC	540.-
TT16-ABS	IP65	1NO 1NC	520.-
TT16-ABS	IP65	2NO 2NC	645.-

TT16-MBS รุ่นกดไม่ล็อค

Type	IP	Contact	Price
TT16-MBS	IP44	1NO 1NC	290.-
TT16-MBS	IP44	2NO 2NC	470.-
TT16-MBS	IP65	1NO 1NC	480.-
TT16-MBS	IP65	2NO 2NC	600.-

TT16-ABL/MBL



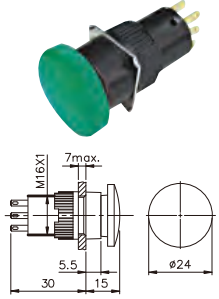
TT16-ABL รุ่นกดล็อค

Type	IP	Contact	Price
TT16-ABL	IP44	1NO 1NC	410.-
TT16-ABL	IP44	2NO 2NC	540.-
TT16-ABL	IP65	1NO 1NC	520.-
TT16-ABL	IP65	2NO 2NC	645.-

TT16-MBL รุ่นกดไม่ล็อค

Type	IP	Contact	Price
TT16-MBL	IP44	1NO 1NC	290.-
TT16-MBL	IP44	2NO 2NC	470.-
TT16-MBL	IP65	1NO 1NC	480.-
TT16-MBL	IP65	2NO 2NC	645.-

TT16-AMR/MMR



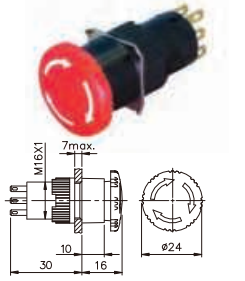
TT16-AMR รุ่นหัวเห็ดใหญ่กดล็อค

Type	IP	Contact	Price
TT16-AMR	IP44	1NO 1NC	485.-
TT16-AMR	IP44	2NO 2NC	590.-
TT16-AMR	IP65	1NO 1NC	565.-
TT16-AMR	IP65	2NO 2NC	675.-

TT16-MMR รุ่นหัวเห็ดใหญ่กดไม่ล็อค

Type	IP	Contact	Price
TT16-MMR	IP44	1NO 1NC	460.-
TT16-MMR	IP44	2NO 2NC	565.-
TT16-MMR	IP65	1NO 1NC	540.-
TT16-MMR	IP65	2NO 2NC	650.-

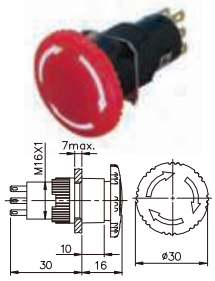
TT16-BKR



TT16-BKR รุ่นหัวเห็ดกดไม่ล็อค

Type	IP	Contact	Price
TT16-BKR	IP44	1NO 1NC	720.-
TT16-BKR	IP44	2NO 2NC	835.-
TT16-BKR	IP65	1NO 1NC	810.-
TT16-BKR	IP65	2NO 2NC	925.-

TT16-BKLR



TT16-BKLR รุ่นหัวเห็ดใหญ่กดล็อค

Type	IP	Contact	Price
TT16-BKLR	IP44	1NO 1NC	735.-
TT16-BKLR	IP44	2NO 2NC	840.-
TT16-BKLR	IP65	1NO 1NC	810.-
TT16-BKLR	IP65	2NO 2NC	925.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ IP44 IP65

Ø16

MODEL DESIGNATION

TT16 - AI R 4 1 R 1

❶ ❷ ❸ ❹ ❺ ❻ ❼

Designation	Signal	Description		
1.Mounting hole	TT16	Ø16 mm Series		
2.Type	AI	Illuminated Push Button (Alternate)(LED Lamp)		
	ML	Illuminated Push Button (Momentary)(LED Lamp)		
	PL	Pilot Lamp (LED Lamp)		
3.Shape	R	Round		
	S	Square		
	L	Rectangular		
4.Operator protection	4	IP40		
	6	IP65		
5.Voltage	1	110V AC LED Lamp		
	2	220V AC LED Lamp		
	5	6V LED Lamp		
	7	24V LED Lamp		
	9	12V LED Lamp		
6.Lens color	R	Red	W	White
	G	Green	BL	Blue
	Y	Yellow		
7.Contact blocks	1	1a1b (1NO 1NC)		
	2	2a2b (2NO 2NC)		

CHARACTERISTICS

Contact resistance	50 mΩ max. (intial)
Insulation resistance	100 MΩ min. (at 500V DC)
Dielectric strength	1000V AC, 50/ 60 Hz for 1 minute between non-continuous terminals 2000V AC, 50/ 60 Hz for 1 minute between current-carrying part and ground.
Vibration	Mechanical durability : 10 to 55 Hz 1.5 mm double amplitube
Shock	Mechanical durability : Approx. 500 m/ sec^2 (approx. 50 G's) Malfunction durability : Approx. 500 m/ sec^2 (approx. 50G's)
Ambient operating temperature	Operating : -25°C to 55°C Storange : -30°C to 80°C
Humidity	45% to 80% RH
Mechanical life (min)	Momentary : 2,000,000
	Alternate/ BKR : 250,000
Electrical life (min)	Momentary : 100,000 (1,800 operations/ hour) Alternate/ BKR : 100,000 (1,200 operations/ hour)

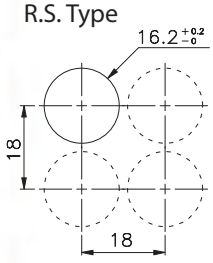
RATING (CONTACT)

Rated insulation voltage			250 V AC		125 V AC
Rated continuous current (A)			3A		5A
Rated operating current (A)					
AC			DC		
Voltage	AC13	AC12	Voltage	DC13	DC12
110 V	0.7 A	1 A	12 V	0.7 A	1 A
220 V	0.5 A	0.5 A	24 V	0.7 A	1 A

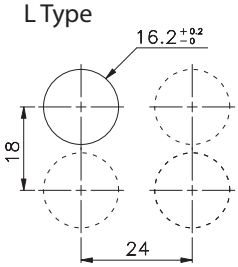
AC13/DC13 : Inductive load; AC12/DC12 : Resistive load

PANEL CUT-OUT

R.S. Type

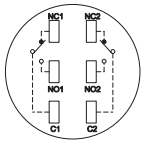


L Type

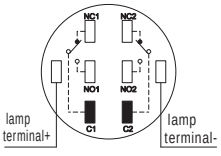


TERMINAL ARRANGEMENT

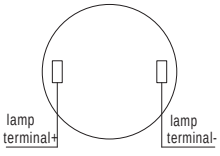
Illuminated Push Button (TOP)



Push Button Push-Lock (TOP)



Pilot Light (TOP)



LAMP DESIGNATION

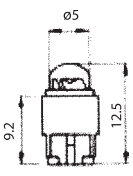
Lamp type	Signal	Rated voltage	Signal	Operating voltage	Rated current	Color code	Signal	Designation
LED	TL	6V AC/ DC	6	6V AC/ DC	26 mA	Red Blue Green Orange White	R BL G O W	TL -6R
		12V AC/ DC	12	12V AC/ DC	26 mA			
		24V AC/ DC	24	24V AC/ DC	26 mA			
		110V AC	110	110V AC	1.5 mA			
		220V AC	220	220V AC	1.5 mA			

Designation need to be completed according to signals.

LAMP DIMENSIONS (For TT16)

TL -□□ (LED) **170.-**





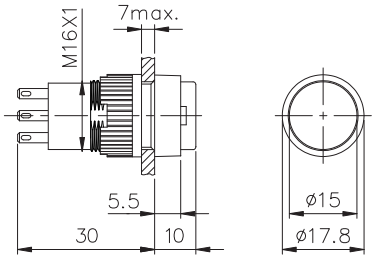
หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH
สวิตช์กดมีแลมป์ IP44 IP65
Ø16

■ สวิตช์กดพร้อมแลมป์ ชนิดคอนแทคสั้น

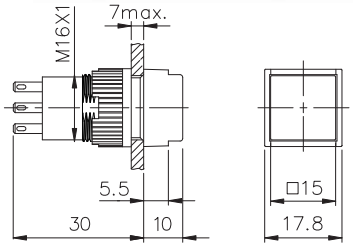




Bulb	Type	IP	Description	Contact	Price
LED	TT16-ALR-4	IP44	กดล็อค	1NO 1NC	480.-
	TT16-ALR-4	IP44	กดล็อค	2NO 2NC	555.-
	TT16-ALR-6	IP65	กดล็อค	1NO 1NC	600.-
	TT16-ALR-6	IP65	กดล็อค	2NO 2NC	675.-
LED	TT16-MLR-4	IP44	กดไม่ล็อค	1NO 1NC	345.-
	TT16-MLR-4	IP44	กดไม่ล็อค	2NO 2NC	480.-
	TT16-MLR-6	IP65	กดไม่ล็อค	1NO 1NC	465.-
	TT16-MLR-6	IP65	กดไม่ล็อค	2NO 2NC	600.-

■ สวิตช์กดพร้อมแลมป์ ชนิดคอนแทคสั้น

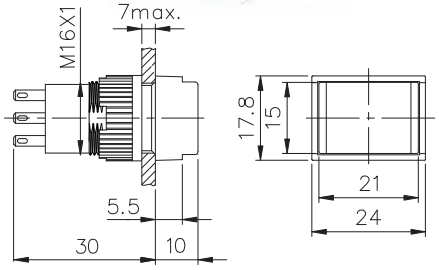




Bulb	Type	IP	Description	Contact	Price
LED	TT16-ALS-4	IP44	กดล็อค	1NO 1NC	480.-
	TT16-ALS-4	IP44	กดล็อค	2NO 2NC	555.-
	TT16-ALS-6	IP65	กดล็อค	1NO 1NC	600.-
	TT16-ALS-6	IP65	กดล็อค	2NO 2NC	675.-
LED	TT16-MLS-4	IP44	กดไม่ล็อค	1NO 1NC	345.-
	TT16-MLS-4	IP44	กดไม่ล็อค	2NO 2NC	480.-
	TT16-MLS-6	IP65	กดไม่ล็อค	1NO 1NC	465.-
	TT16-MLS-6	IP65	กดไม่ล็อค	2NO 2NC	600.-

■ สวิตช์กดพร้อมแลมป์ ชนิดคอนแทคสั้น





Bulb	Type	IP	Description	Contact	Price
LED	TT16-ALL	IP44	กดล็อค	1NO 1NC	480.-
	TT16-ALL	IP44	กดล็อค	2NO 2NC	555.-
	TT16-ALL	IP65	กดล็อค	1NO 1NC	600.-
	TT16-ALL	IP65	กดล็อค	2NO 2NC	675.-
LED	TT16-MLL	IP44	กดไม่ล็อค	1NO 1NC	345.-
	TT16-MLL	IP44	กดไม่ล็อค	2NO 2NC	480.-
	TT16-MLL	IP65	กดไม่ล็อค	1NO 1NC	465.-
	TT16-MLL	IP65	กดไม่ล็อค	2NO 2NC	600.-

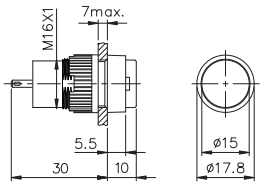
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

PILOT LAMP
ไพล็อตแลมป์ IP44 IP65
Ø16

ไพล็อตแลมป์ ชนิดคอนแทคสั้น

TT16-PLR

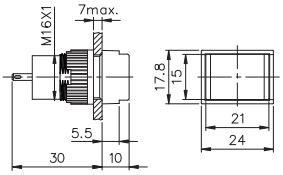




Type	IP	Description	Contact	Price
TT16-PLR	IP44	หลอด LED	1NO 1NC	260.-
TT16-PLR	IP65	หลอด LED	1NO 1NC	315.-

TT16-PLL

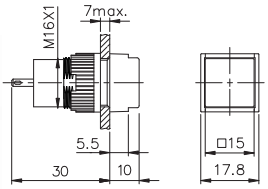




Type	IP	Description	Contact	Price
TT16-PLL	IP44	หลอด LED	1NO 1NC	260.-
TT16-PLL	IP65	หลอด LED	1NO 1NC	315.-

TT16-PLS



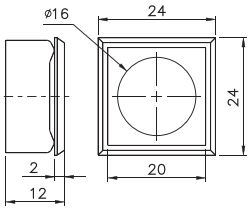


Type	IP	Description	Contact	Price
TT16-PLS	IP44	หลอด LED	1NO 1NC	260.-
TT16-PLS	IP65	หลอด LED	1NO 1NC	315.-

COVER

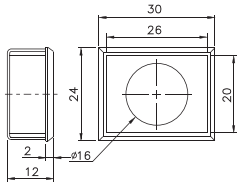
TT16-FS — 90.-
Square Cover





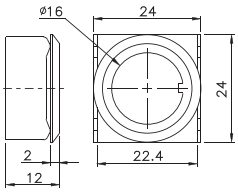
TT16-FL — 90.-
Rectangular Cover





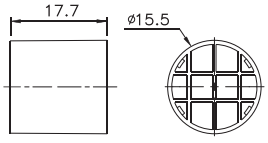
TT16-FR — 90.-
Round Cover





Terminal Cover — -





SELECTOR SWITCH / KEY SWITCH

สวิตช์ลูกศร / สวิตช์กุญแจ IP44 IP65

Ø16

TT16 - KS R 4 B 1 1 1 A
1 2 3 4 5 6 7 8 9

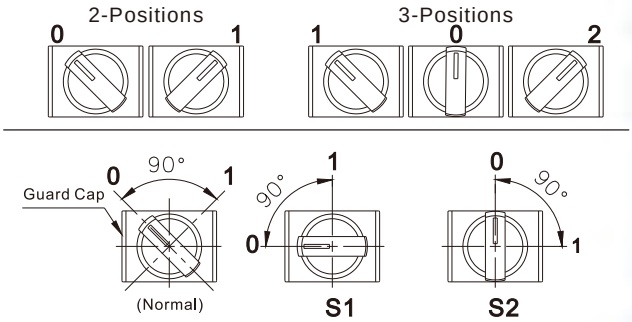
MODEL DESIGNATION

KSR/KSS/KLS only black.

Designation	Signal	Description
1.Mounting hole	TT-16	Ø16 mm Series
2.Type	SS	Knob Operator
	KS	Key Operator
3.Shape	R	Round
	S	Square
	L	Rectangular
4.Operator protection	4	IP44
	6	IP65
5.Lens color	R	Red
	G	Green
	B	Black
6.Positions	1	90° 2-Positions
	2	90° 2-Positions Spring return from right
	7	90° 3-Positions
	8	90° 3-Positions Spring return from right
	9	90° 3-Positions Spring return from left
	0	90° 3-Positions 2-Ways Spring return

Designation	Signal		Description	
			2-Positions	3-Positions
7.Type contact blocks fitted	1		1a1b	-
	2		2a2b	1a1b 0 1a1b
8.Key withdrawable	1	2 Positions	0.1 Key withdrawable	
	2		0 Key withdrawable	
	3		1 Key withdrawable	
	4	3 Positions	0.1.2 Key withdrawable	
	5		0 Key withdrawable	
9.Key no.	A		331	
	B		311	
	C		131	

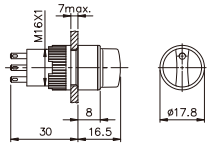
KEY WITHDRAWABLE



DIMENSION

TT16-SSR สวิตช์ลูกศร

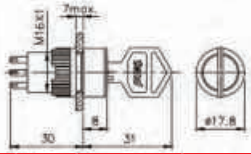




Type	IP	Contact	Price
TT16-SSR	IP44	1NO 1NC	640.-
TT16-SSR	IP44	2NO 2NC	745.-
TT16-SSR	IP65	1NO 1NC	720.-
TT16-SSR	IP65	2NO 2NC	835.-

TT16-KSR สวิตช์กุญแจ

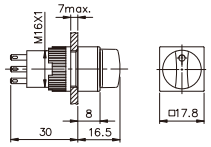




Type	IP	Contact	Price
TT16-KSR	IP44	1NO 1NC	880.-
TT16-KSR	IP44	2NO 2NC	980.-
TT16-KSR	IP65	1NO 1NC	960.-
TT16-KSR	IP65	2NO 2NC	1,070.-

TT16-SSS สวิตช์ลูกศร

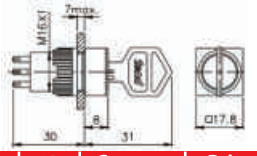




Type	IP	Contact	Price
TT16-SSS	IP44	1NO 1NC	640.-
TT16-SSS	IP44	2NO 2NC	745.-
TT16-SSS	IP65	1NO 1NC	720.-
TT16-SSS	IP65	2NO 2NC	835.-

TT16-KSS สวิตช์กุญแจ

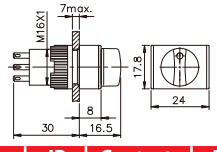




Type	IP	Contact	Price
TT16-KSS	IP44	1NO 1NC	880.-
TT16-KSS	IP44	2NO 2NC	980.-
TT16-KSS	IP65	1NO 1NC	960.-
TT16-KSS	IP65	2NO 2NC	1,070.-

TT16-SSL สวิตช์ลูกศร

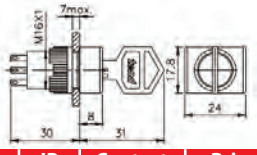




Type	IP	Contact	Price
TT16-SSL	IP44	1NO 1NC	640.-
TT16-SSL	IP44	2NO 2NC	745.-
TT16-SSL	IP65	1NO 1NC	720.-
TT16-SSL	IP65	2NO 2NC	835.-

TT16-KSL สวิตช์กุญแจ





Type	IP	Contact	Price
TT16-KSL	IP44	1NO 1NC	880.-
TT16-KSL	IP44	2NO 2NC	980.-
TT16-KSL	IP65	1NO 1NC	960.-
TT16-KSL	IP65	2NO 2NC	1,070.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend PUSH BUTTON SWITCH

สวิตช์กด IP44 IP65

Ø16

MODEL DESIGNATION

TN16 - AB R 4 R 1 P

1 2 3 4 5 6 7

Designation	Signal	Description
1.Mounting hole	TN-16	Ø16 mm Series
2.Type	AB	Push Button (Alternate)
	MB	Push Button (Momentary)
	AM	Push Button (Alternate)(Mushroom Head)
	MM	Push Button (Momentary)(Mushroom Head)
	BK	Push-Lock Turn-Reset
3.Shape	R	Round
	S	Square
	L	Rectangular
4.Operator protection	4	IP40
	6	IP65
5.Lens color	R	Red
	G	Green
	Y	Yellow
	O	Orange
	W	White
	BL	Blue
	B	Black
6.Contact blocks	1	1a1b
	2	2a2b
	3	3a3b
7.Terminal	None	Solder/ Plug-in
	P	PC Board

- AM/MM/BK Types only available in round shape.
- AM/MM Types available in Red, Yellow, Green, Black Colors.
- BK Type available in Red colors

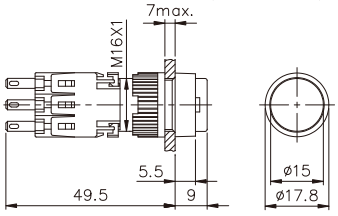
CHARACTERISTICS

Contact resistance	50 mΩ max. (intial)
Insulation resistance	100 MΩ min. (at 500V DC)
Dielectric strength	1000V AC, 50/ 60 Hz for 1 minute between non-continuous terminals 2000V AC, 50/ 60 Hz for 1 minute between current-carrying part and ground.
Vibration	Mechanical durability : 10 to 55 Hz 1.5 mm double amplitube
Shock	Mechanical durability : Approx. 500 m/ sec² (approx. 50 G's) Malfunction durability : Approx. 500 m/ sec² (approx. 50G's)
Ambient temperature	Operating : -25°C to 55°C Storange : -30°C to 80°C
Humidity	45% to 80% RH
Mechanical life(min)	Momentary : 2,000,000 Alternate/ BKR : 250,000
Electrical life(min)	Momentary : 100,000 (1,800 operations/ hour) Alternate/ BKR : 100,000 (1,200 operations/ hour)

DIMENSIONS

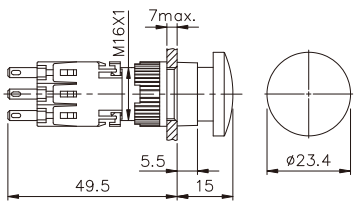
TN16-ABR (1NO + 1NC) **480.-** (กดล็อค)
TN16-MBR **410.-** (กดไม่ล็อค)





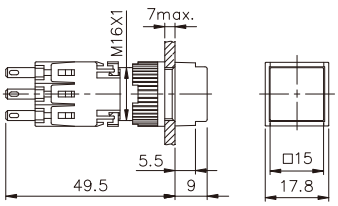
TN16-AMR (1NO + 1NC) **650.-** (กดล็อค)
TN16-MMR **550.-** (กดไม่ล็อค)





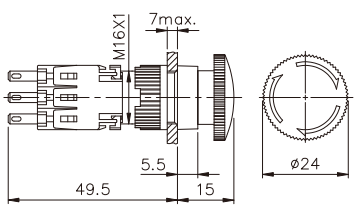
TN16-ABS (1NO + 1NC) **480.-** (กดล็อค)
TN16-MBS **410.-** (กดไม่ล็อค)





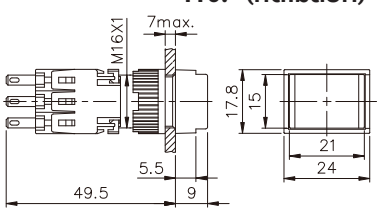
TN16-BKR (1NO + 1NC) **840.-** (กดล็อค)





TN16-ABL (1NO + 1NC) **480.-** (กดล็อค)
TN16-MBL **410.-** (กดไม่ล็อค)

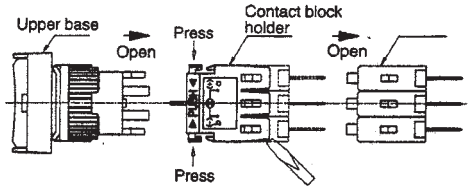




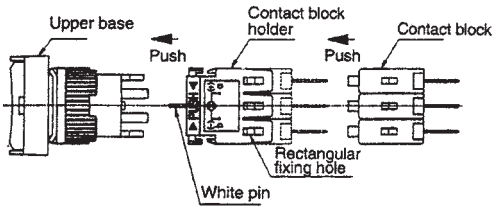
GENERAL INFORMATION
สวิตช์กด IP44 IP65
Ø16

FEATURES

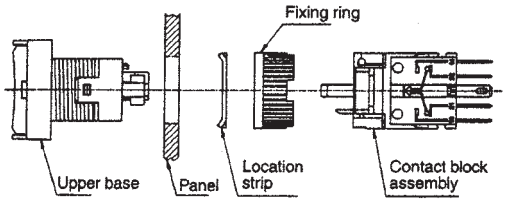
- TN16 series are highly modular detachable swithes. Including upper base, contact block holder and contact block. When disassembling, press the contact block holder in the direction of arrow with “Push” by man ual or a flat “ _ “ screwdriver to disassemble contact block assembly from upper base. To disassemble con tact block from contact block holder, insert the screw driver in the groove between contact block and contact block holder, then twist it.



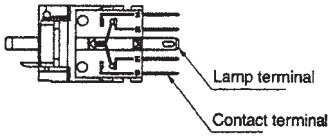
- When Assembling the contact block and contact block holder, aiming the rectangular spot on the contact block to the rectangular fixing hole on the contact block holder, then push in Aiming the white pin of the contact block assembly to the slot of white pin located on the upper base to assemble the switch.



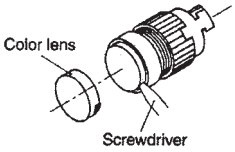
- Mounting method



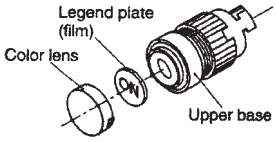
- The lamp terminal for pilot lamp and illuminated push button switch is in the middle position which is 90 degrees from other terminals.



- Method of replacing color lens, insert a flat “ _ “ screw-drive into the groove of the lens twist it.

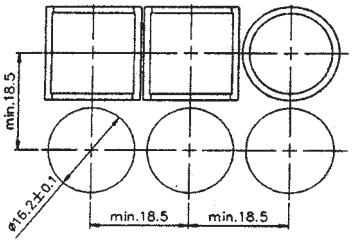


- The legend plate can be removed by detaching the lens, and replace the legend plate you need.

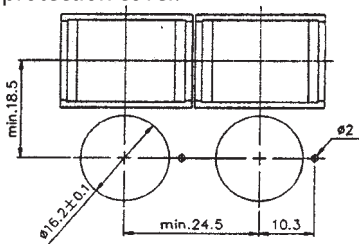


THE SPACE OF MOUNTING HOLES (MM)

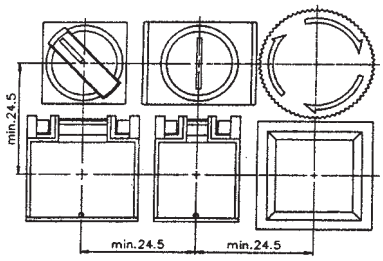
- (Round, square) pilot lamp, illuminated push button Switch



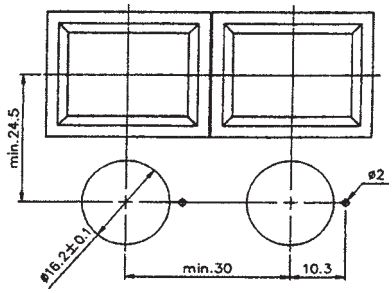
- (Rectangular) pilot lamp, illuminated push button Switch (Square) protection cover.



- (Round, square rectangular) selector, key switch (Round, square) waterproof cap, (Rectangular) protection cover Mushroom head, push-lock push button Switch



- Recangular waterproof cap



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์ IP44 IP65

Ø16

MODEL DESIGNATION

TN16 - AN R 4 1 R 1 P

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Designation	Signal	Description
1.Mounting hole	TN16	Ø16 mm Series
2.Type	AI	Illuminated Push Button (Alternate) (Incandescent Lamp)
	AL	Illuminated Push Button (Alternate) (LED Lamp)
	AN	Illuminated Push Button (Alternate) (Neon Lamp)
	MI	Illuminated Push Button (Momentary) (Incandescent Lamp)
	ML	Illuminated Push Button (Momentary) (LED Lamp)
	MN	Illuminated Push Button (Momentary) (Neon Lamp)
	PI	Pilot Lamp (Incandescent Lamp)
	PL	Pilot Lamp (LED Lamp)
	PN	Pilot Lamp (NeonLamp)
3.Shape	R	Round
	S	Square
	L	Rectangural

AL/ML/PL use DC voltage; AN/MN/PN use AC voltage

Designation	Signal	Description
4.Operator protection	4	IP40
	6	IP65
5.Voltage	1	110V AC
	2	220V AC
	3	380V AC
	5	6V
	7	24V
	8	28V
	9	12V
6.Lens color	R	Red
	G	Green
	Y	Yellow
	O	Orange
	W	White
	BL	Blue
7.Contact blocks	1	1a1b
	2	2a2b
	3	3a3b
8.Terminal	None	Solder/ Plug-in
	P	PC Board

CHARACTERISTICS

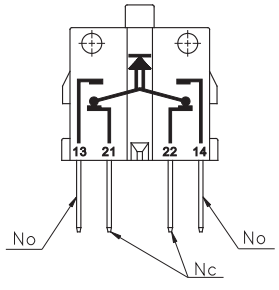
Contact resistance	50 mΩ max. (intial)
Insulation resistance	100 MΩ min. (at 500V DC)
Dielectric strength	1000V AC, 50/ 60 Hz for 1 minute between non-continuous terminals 2000V AC, 50/ 60 Hz for 1 minute between current-carrying part and ground.
Vibration	Mechanical durability : 10 to 55 Hz 1.5 mm double amplitube
Shock	Mechanical durability : Approx. 500 m/ sec^2 (approx. 50 G's) Malfunction durability : Approx. 500 m/ sec^2 (approx. 50G's)
Ambient temperature	Operating : -25°C to 55°C Storange : -30°C to 80°C
Humidity	45% to 80% RH
Mechanical life(min)	Momentary : 2,000,000 Alternate/ BKR : 250,000
Electrical life(min)	Momentary : 100,000 (1,800 operations/ hour) Alternate/ BKR : 100,000 (1,200 operations/ hour)

RATING (CONTACT)

Pated insulation voltage			250 V AC/DC		
Pated continuous current (A)			5A		
Pated operating current (A)					
AC			DC		
Voltage	AC13	AC12	Voltage	DC13	DC12
110V	1.0	1.5	24V	0.7	1
220V	0.7	1.0	110V	0.15	0.2

AC13/DC13 : Inductive load : AC12/DC12 : Resistive load

CONTACT CONFIGURATION



tend ILLUMINATED PUSH BUTTON SWITCH / PILOT LAMP

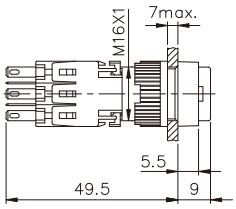
สวิตช์กดมีแลมป์ IP44 IP65

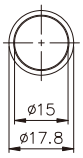
Ø16

DIMENSIONS

TN16-AIR 475.- / ALR 625.- / ANR 530.- (กดล็อค)
TN16-MIR 445.- / MLR 595.- / MNR 500.-(กดไม่ล็อค)



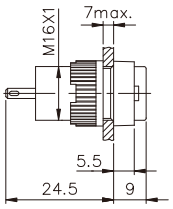


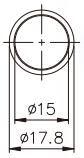


(1NO + 1NC)

TN16-PIR 245.- / PLR 360.- / PNR 305.-

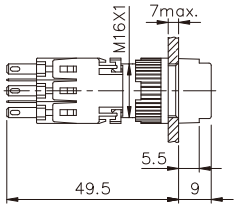


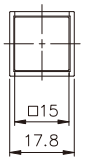




TN16-AIS 475.- / ALS 625.- / ANS 530.- (กดล็อค)
TN16-MIS 445.- / MLS 595.- / MNS 500.- (กดไม่ล็อค)



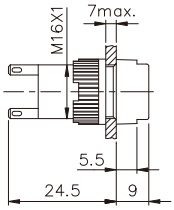


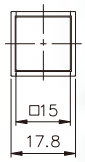


(1NO + 1NC)

TN16-PIS 245.- / PLS 360.- / PNS 305.-

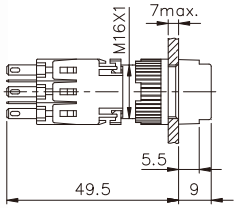


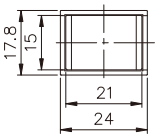




TN16-AIL 475.- / ALL 625.- / ANL 530.- (กดล็อค)
TN16-MIL 445.- / MLL 595.- / MNL 500.- (กดไม่ล็อค)



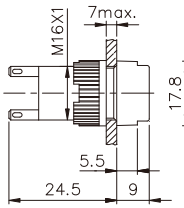


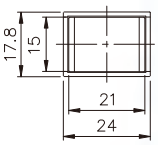


(1NO + 1NC)

TN16-PIL 245.- / PLL 360.- / PNL 305.-







LAMP DESIGNATION

หมายเหตุ : รุ่น TN16 LED สีน้ำเงิน, สีเขียว, สีขาว ต้องเพิ่มราคาอีก 20 บาท

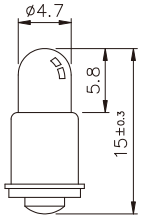
Lamp type	Signal	Rated voltage	Signal	Operating voltage	Rated current	Color code	Signal	Designation
Incandescent	I	6.3V AC/ DC	6	6.3V AC/ DC	110 mA	None	None	I - 6
		14V AC/ DC	14	12V AC/ DC	50 mA			
		28V AC/ DC	28	24/ 28V AC/ DC	25 mA			
LED	L	6V DC	6	6V DC	26 mA	Red Orange	R O	L - 6 R
		12V DC	12	12V DC	26 mA	Green Blue	G BL	
		24V DC	24	24V DC	26 mA	Yellow White	Y W	
Neon	N	110V AC	110	110V AC	1.5 mA	Red Green	R G	N - 110 R
		220V AC	220	220V AC	1.5 mA			
		380V AC	380	380V AC	1.5 mA			

● Designation need to be completed according to signals.

LAMP DIMENSIONS (T1 3/4 BASE)

2T1.75□ 66.-

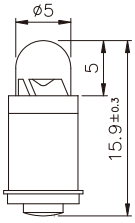




Incandescent

2T1.75 L□ 210.-

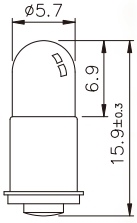




LED สีแดง, ส้ม, เหลือง
LED สีเขียว, น้ำเงิน, ขาว

2T1.75□ 130.-





Neon

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

SELECTOR SWITCH / KEY SWITCH

สวิตช์กดลูกศร / สวิตช์กุญแจ IP40 IP65

Ø16

MODEL DESIGNATION

TN16	-	KS	R	4	B	1	1	1	A	P
①		②	③	④	⑤	⑥	⑦	⑧	⑨	⑩

Designation	Signal	Description
1.Mounting hole	TN-16	ø16 mm Series
2.Type	SS	Knob Operator
	KS	Key Operator
3.Shape	R	Round
	S	Square
	L	Rectangular
4.Operator protection	4	IP 40
	6	IP 65
5.Lens color	R	Red
	G	Green
	B	Black
6.Positions	1	90° 2 - Positions
	2	90° 2 - Positions Spring return from right
	3	180° 3 - Positions
	4	150° 3 - Positions Spring return from right
	5	150° 3 - Positions Spring return from left
	6	150° 3 - Positions 2-Ways Spring return
	7	90° 3 - Positions
	8	90° 3 - Positions Spring return from right
	9	90° 3 - Positions Spring return from left
	0	90° 3 - Positions 2-Ways Spring return

Designation	Signal	2 Positions	3 Positions
7.Type of contact blocks fitted	1	1a1b	-
	2	2a2b	1a1b 0 1a1b
	3	3a3b	1a1b 1a1b 1a1b

Designation	Signal		Description
8.Key withdrawable	1	2 Positions	0.1 Key withdrawable
	2		0 Key withdrawable
	3		1 Key withdrawable
	4	3 Positions	0.1.2 Key withdrawable
	5		0 Key withdrawable

Designation			2 Positions	3 Positions
9.Key no.	A	F	2132	3123
	B	G	2231	3133
	C	H	2313	3213
	D	I	2331	3231
	E	J	3131	3331

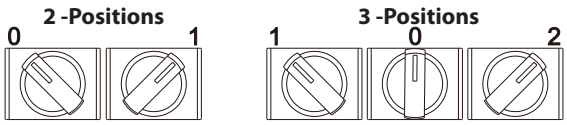
Designation	Signal	Description
10.Terminal	None	Solder / Plug-in
	P	PC Board

- KSR/KSS/KSL Type only available in black colors.

CHARACTERICS

Contact resistance	50 mΩ max. (intial)
Insulation resistance	100 MΩ min. (at 500V DC)
Dielectric strength	1000V AC, 50/ 60 Hz for 1 minute between non-continuous terminals 2000V AC, 50/ 60 Hz for 1 minute between current-carrying part and ground.
Vibration	Mechanical durability : 10 to 55 Hz 1.5 mm double amplitube
Shock	Mechanical durability : Approx. 500 m/ sec² (approx. 50 G's) Malfunction durability : Approx. 500 m/ sec² (approx. 50G's)
Ambient temperature	Operating : -25°C to 55°C Storange : -30°C to 80°C
Humidity	45% to 80% RH
Mechanical life(min)	250,000 operations
Electrical life(min)	100,000 operations

KEY WITHDRAWABLE



- 2 -Positions

Key withdrawable / Positions	1		2		3	
	0	1	0	1	0	1
1	•	•	•	-	-	•
2	•	•	•	-	-	•

- 3 -Positions

Key withdrawable / Positions	4			5		
	1	0	2	1	0	2
3	•	•	•	-	•	-
4				-	•	-
5				-	•	-
6				-	•	-
7				-	•	-
8				-	•	-
9				-	•	-
0				-	•	-

- KEY WITHDRAWABLE

tend

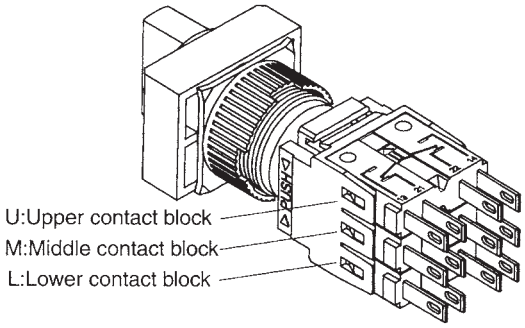
SELECTOR SWITCH / KEY SWITCH

สวิตช์กดลูกศร / สวิตช์กุญแจ IP40 IP65

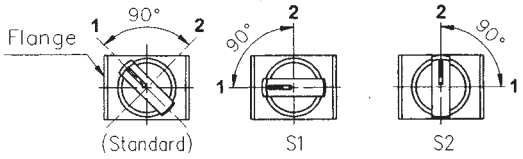
Ø16

CONTACT BLOCK POSITIONS

● **View from back**



The operating angle range can be changed asshown below by setting the attached flange shifted by 45°in combination with the contact block.In this case, the minimum mounting pitch is 26 mm because the contact block is shifted by 45°from the flange.



● **Contact arrangement and operator positions:**

2-Positions selector switch / Key switch

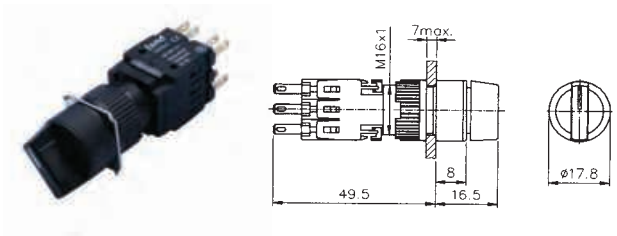
Contact arrangement		1 NO + 1 NC (1a1b)	2 NO + 2 NC (2a2b)	3NO + 3 NC (3a3b)
Operator position	Left	21 o—— o 22 13 o o14	21 o—— o22 13 o o14 21 o—— o22 13 o o14	21 o—— o22 13 o o14 21 o—— o22 13 o o14 21 o—— o22 13 o o14
	Right	21 o o22 13 o—— o14	21 o o22 13 o—— o14 21 o o22 13 o—— o14	21 o o22 13 o—— o14 21 o o22 13 o—— o14 21 o o22 13 o—— o14

3-Positions selector switch / Key switch

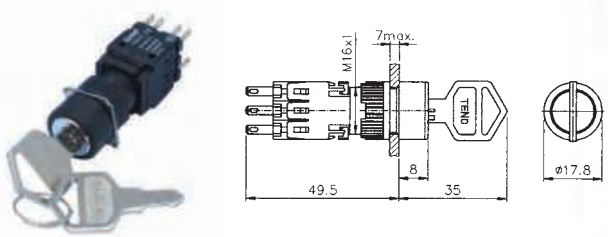
Contact arrangement		2 NO + 2 NC (2a2b)		3NO + 3 NC (3a3b)		
		U	L	U	M	L
Operator position	Left	21 o , , o22 13 o o14	21 o o22 13 o—— o14	21 o , , o22 13 o o14	21 o o22 13 o—— o14	21 o , , o22 13 o o14
	Center	21 o , , o22 13 o o14	21 o , , o22 13 o o14	21 o , , o22 13 o o14	21 o , , o22 13 o o14	21 o , , o22 13 o o14
	Right	21 o o22 13 o—— o14	21 o , , o22 13 o o14	21 o o22 13 o—— o14	21 o o22 13 o—— o14	21 o , , o22 13 o o14

DIMENSIONS

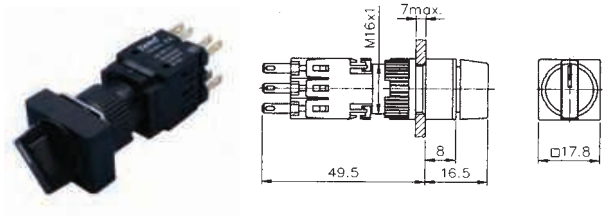
TN16-SSR (1NO+1NC) **700.-**



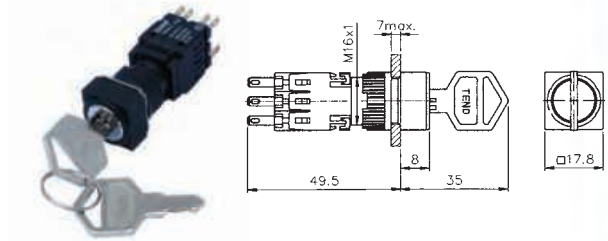
TN16-KSR (1NO+1NC) **880.-**



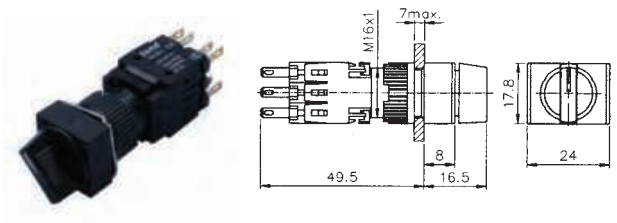
TN16-SSS (1NO+1NC) **700.-**



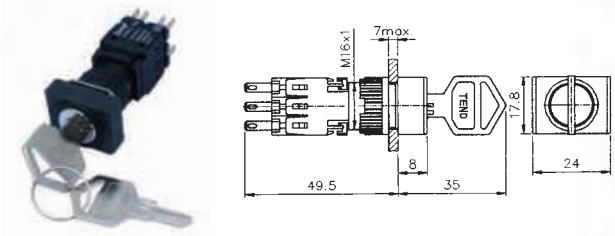
TN16-KSS (1NO+1NC) **880.-**



TN16-SSL (1NO+1NC) **700.-**



TN16-KSL (1NO+1NC) **880.-**



หมายเหตุ:ราคานี้เป็นราคาชนิด IP40 สามารถเพิ่ม contact ได้ถึง 3a 3b (3NO+3NC) : เพิ่ม contact 1NO+1NC รุ่น TN16-C หรือ TN16-CP อีก

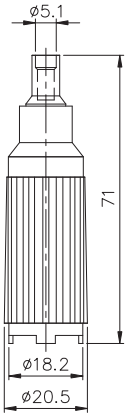
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ACCESSORIES
อุปกรณ์เสริม
Ø16

DIMENSIONS

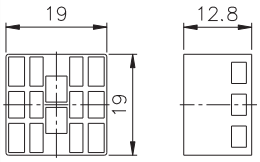
Lamp changer and wrench
TN16-A **175.-**



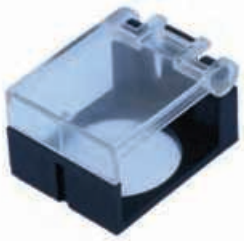


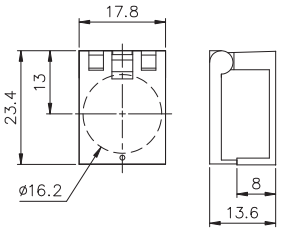
TN16-Terminal cover
TN16-TC **40.-**





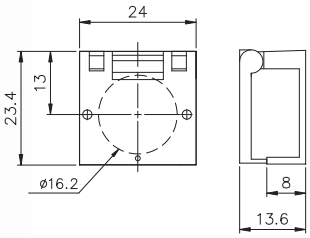
TN16-Round/square protection cover
TN16-GS **125.-**





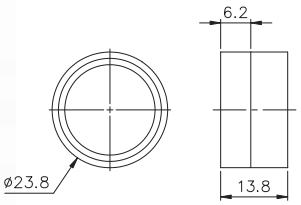
Rectangular protection cover
TN16-GL **125.-**



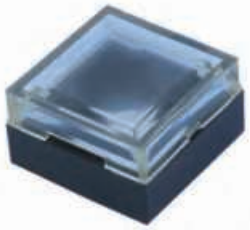


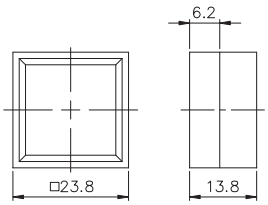
Round head duct-tight cover
TN16-WR **125.-**



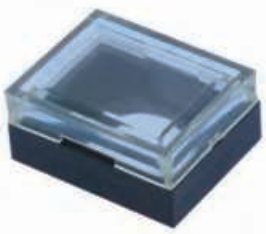


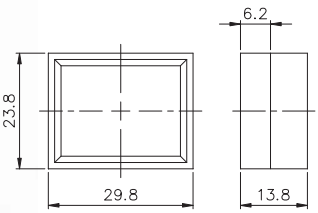
Square head duct-tight cover
TN16-WS **125.-**





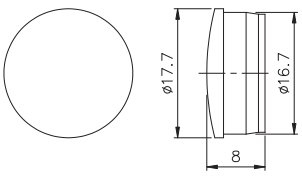
Rectangular head duct-tight cover
TN16-WL **125.-**



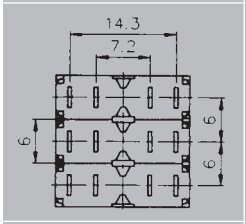
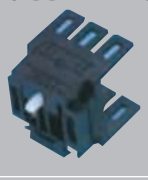
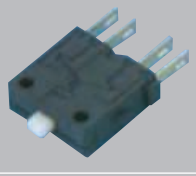


Blanking plug
TN16-BP **25.-**





tend ACCESSORIES
อุปกรณ์เสริม
Ø16

Features	Model	Type	Designation		
			Item	Signal	Designation
	Contact blocks assembly	**TN16-A** [B] [1] [P] Please use signal for ☐	1.Contact blocks holder	B	contact blocks holder or push button
				I	contact blocks holder for Illuminated button
				S	contact blocks holder for SS,KS,BK
	(View -From back)		2.Contact blocks fitted	1	1a1b (1NO+1NC)
				2	2a2b (2NO+2NC)
				3	3a3b (3NO+3NC)
			3.Type of contact holder	None	Solder / Plug-in
				P	PC board terminal
TN16-BB **35.-** 	Contact blocks holder	**TN16-A B** [B] Please use signal for ☐	Contact blocks holder	B	contact blocks holder for Push Button
TN16-BI **35.-** 				I	contact blocks holder for Illuminated Push Button
TN16-BS **35.-** 				S	contact blocks holder for SS,KS,BK
TN16-C **160.-** 	Contact blocks	**TN16-C** [P] Please use signal for ☐	Contact blocks	None	Solder / Plug-in
TN16-CP **160.-** 				P	PC Board
	Block	**TN16-D**	**25.-**		

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

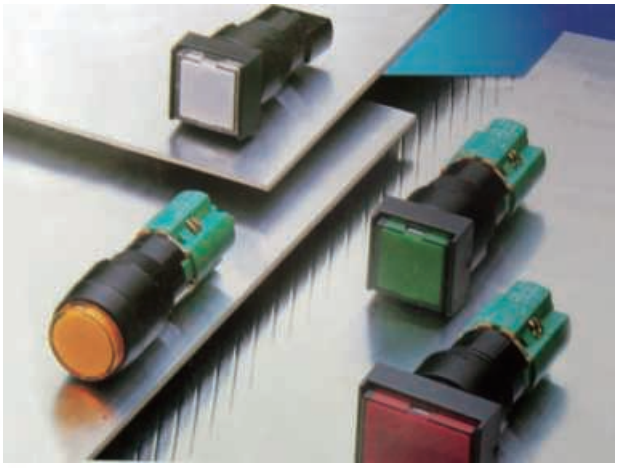
tend

ILLUMINATED PUSH BUTTON SWITCH
สวิตช์กดมีแลมป์
Ø16

ISO 9002

MODEL DESIGNATION

T16 - I R 1 R 1
① ② ③ ④ ⑤ ⑥



Designation	Signal	Description
1.Mounting hole	T16	ø16 mm Series
2.Type	I	Illuminated Push Button (Alternate)
	B	Illuminated Push Button (Momentary)
	P	Pilot Lamp
	K	Key Switch
	G	Switch Guard
	S	Sealing Cap
3.Shape	R	Round
	S	Square
	L	Rectangular
4.Voltage	1	110 V AC
	2	220 V AC
	5	6 V
	6	18 V
	7	24 V
	8	28 V
	9	12 V
5.Lens color	R	Red
	G	Green
	O	Orange
	W	White
	BL	Blue
6.Contact blocks	1	1a1b (1NO 1NC)
	2	2a2b (2NO 2NC)
	3	3a3b (3NO 3NC)
	4	4a4b (4NO 4NC)

CHARACTERISTICS

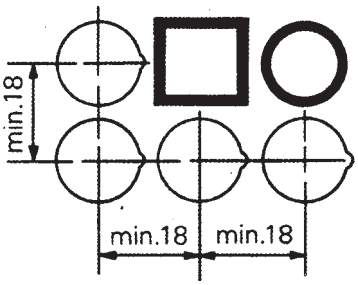
Contact resistance	15 mΩ max
Insulation resistance	100 MΩ
Dielectric strength	1,500 V AC, 50/60 Hz for 1 minute
Ambient temperature	Operating : - 20°C ~ 80 °C
Humidity	95% RH max.
Operation force	150 g
Service life	Mechanically : 1,000, 000 Operations min. Electrically : 100, 000 Operations min.
Weight	10 gr (1a1b)
	15 gr (4a4b)

RATING

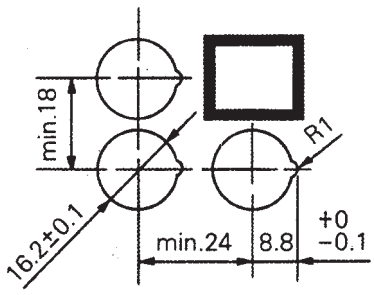
Rated voltage	Resistive load	Inductive	Contact	Length
125V AC	4A	3A	1a1b	41.5 mm
250V AC	4A	3A	2a2b	49.5 mm
24V DC	1A	0.7A	3a3b	57.5 mm
12V DC	0.2A	0.05A	4a4b	65.5 mm

PANEL MOUNTING

(R, S TYPE)



(L TYPE)



tend ILLUMINATED PUSH BUTTON SWITCH

สวิตช์กดมีแลมป์

Ø16

ISO 9002

■ สวิตช์กดมีไฟในตัว (12V, 24V, 110V, 220V)

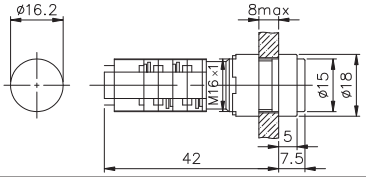
T16-IR (กดล็อค)

1a1b	420.-	2a2b	565.-
3a3b	705.-	4a4b	840.-

T16-BR (กดไม่ล็อค)

1a1b	385.-	2a2b	525.-
3a3b	660.-	4a4b	795.-





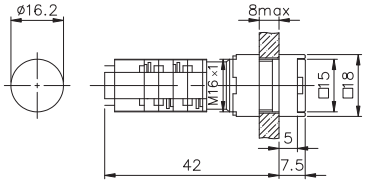
T16-IS (กดล็อค)

1a1b	420.-	2a2b	565.-
3a3b	705.-	4a4b	840.-

T16-BS (กดไม่ล็อค)

1a1b	385.-	2a2b	525.-
3a3b	660.-	4a4b	795.-





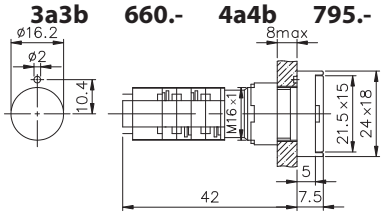
T16-IL (กดล็อค)

1a1b	420.-	2a2b	565.-
3a3b	705.-	4a4b	840.-

T16-BL (กดไม่ล็อค)

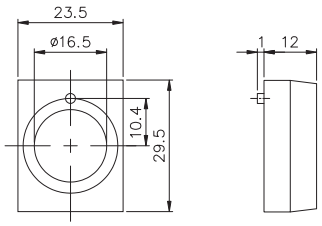
1a1b	385.-	2a2b	525.-
3a3b	660.-	4a4b	795.-





T16-WL 120.-

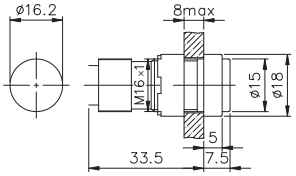




■ ไพล็อตแลมป์ (24V, 220V)

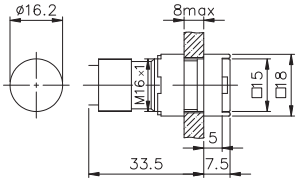
T16-PR ไพล็อตแลมป์ 240.-





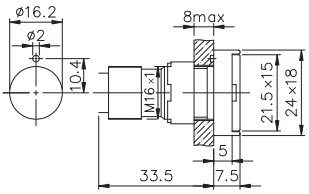
T16-PS ไพล็อตแลมป์ 240.-





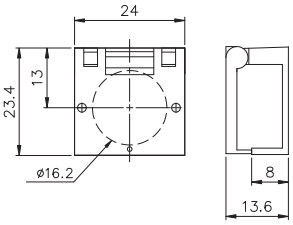
T16-PL ไพล็อตแลมป์ 240.-





T16-GL 110.-





■ MINIATURE TELEPHONE BULB

T-4.5 66.-



Voltage	Wattage	Diameter	Length
v	w	mm	mm
6	0.3	4.2 ±0.2	16.5 +0.5 -1
12	0.5		
18	0.5		
24	0.5		
28	0.7		
110V	0.3		
220V	0.3		

■ TIGHTENING TOOL FOR FIXING LAMP

T16-A 102.-



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

PROXIMITY SWITCH
พร็อคซิมิตี้สวิตช์

ISO 9002

CYLINDRICAL SPIRAL TYPE PROXIMITY SWITCH

FEATURES

- Wide operating voltage range : 3 wire 10-30V DC and 2 wire 90-250V AC.
- With operating indicator LED.
- May drive 200 mA loads directly.
- DC type with reverse-polarity proof.
- DC R5, R10, RL8, RL15, type with short circuit and over load proof.
- The lowest residual voltage.
- AC types are O-cross SCR output, operating stable.



TYPE

DC SWITCH TYPE

Type	NPN	TP-R2N	TP-R5N	TP-R10N
	PNP	TP-R2P	TP-R5P	TP-R10P
O.D.		M12	M18	M30
Detecting distance		2 mm	5 mm	10 mm

AC SWITCH TYPE

Type	TP-R2A	TP-R5A	TP-R10A
O.D.	M12	M18	M30
Detecting distance	2 mm	5 mm	10 mm

SPECIFICATIONS

DC SWITCHING TYPE

Item \ Type	TP-R2 □	TP-R5 □	TP-R10 □
Input power	10-30 V DC		
Current consumption	10 mA max.		
Load current	10 mA at 12 V DC, 200 mA at 24 V DC		
Response frequency	800 Hz	500 Hz	300 Hz
Voltage output decrease	0.7 V max.		
Ambient temperature	-20 ~ +70°C		
Humidity	35 ~ 95% RH		
Standard dectectable object	Iron 12 x 12 x 1t mm	Iron 18 x 18 x 1t mm	Iron 30 x 30 x 1t mm
Cable length	2 M		

AC SWITCHING TYPE

Item \ Type		TP-R2A	TP-R5A	TP-R10A
Input power		90V - 250 V AC		
Current consumption		4 mA		
Load	2-Wire	10 ~ 10 mA		
Current	3-Wire	0 ~ 200 mA		
Response	2-Wire	15 Hz		
Frequency	3-Wire	25 Hz		
Voltage output decrease		4 V		
Ambient temperature		-20 ~ +70°C		
Humidity		35 ~ 95% RH		
Standard dectectable object		Iron 12 x 12 x 1t mm	Iron 18 x 18 x 1t mm	Iron 30 x 30 x 1t mm
Cable length		2 M		

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

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PROXIMITY SWITCH
พร็อคซิมิตี้สวิตช์

ISO 9002

DC TYPE

Outside diameter			M12		M18		M30	
Type			Shielded	Non-shielded	Shielded	Non-shielded	Shielded	Non-shielded
Detecting distance			2 mm	4 mm	5 mm	8 mm	10 mm	15 mm
Type	NO	NPN	TP-R2N1	TP-RL4N1	TP-R5N1	TP-RL8N1	TP-R10N1	TP-RL15N1
		PNP	TP-R2P1	TP-RL4P1	TP-R5P1	TP-RL8P1	TP-R10P1	TP-RL15P1
	NC	NPN	TP-R2N2	TP-RL4N2	TP-R5N2	TP-RL8N2	TP-R10N2	TP-RL15N2
		PNP	TP-R2P2	TP-RL4P2	TP-R5P2	TP-RL8P2	TP-R10P2	TP-RL15P2
Standard detectable object (mm)			IRON 12 x 12 x 1t	IRON 18 x 18 x 1t	IRON 18 x 18 x 1t	IRON 30 x 30 x 1t	IRON 30 x 30 x 1t	IRON 54 x 54 x 1t
Response frequency			1.5 kHz	400 Hz	600 Hz	200 Hz	400 Hz	100 Hz

AC TYPE

Outside diameter		M18		M30	
Type		Shielded	Non-shielded	Shielded	Non-shielded
Detecting distance		5 mm	8 mm	10 mm	15 mm
Type SCR	NO	TP-R5A1	TP-RL8A1	TP-R10A1	TP-RL15A1
	NC	TP-R5A2	TP-RL8A2	TP-R10A2	TP-RL15A2
Standard detectable object (mm)		IRON 18 x 18 x 1t	IRON 30 x 30 x 1t	IRON 30 x 30 x 1t	IRON 54 x 54 x 1t
Response frequency		25 Hz			

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

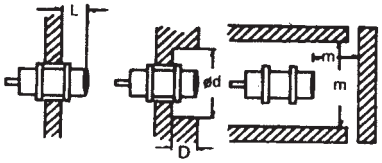
tend PROXIMITY SWITCH
พร็อคซิมิตี้สวิตช์

ISO 9002

HINTS ON CORRECT USE

Influence of surrounding metals

When mounting a proximity switch flush with a metallic panel, be sure to provide a minimum distance as shown in Table 1 below to prevent the switch from being affected by metal objects other than the object to be detected.



Mutual interference

Be sure to space the two switches at a distance greater than that shown in Table 2, to prevent mutual interference.

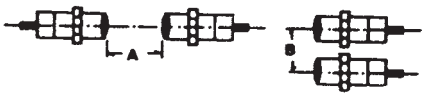


Table 1 : Influence of Surrounding Metal (Unit : mm)

Item / Type	TP-R2 □(A)	TP-R5 □(A)	TP-R10 □(A)
L	0	0	0
d	12	18	30
D	0	0	0
m	8	20	40
n	18	27	45

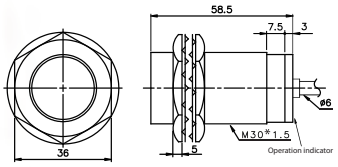
Table 2 : Mutual Interference (Unit : mm)

Item / Type	TP-R2 □(A)	TP-R5 □(A)	TP-R10 □(A)
A	30	50	100
B	15	35	60

TP-R TP-RL DIMENSIONS (mm)

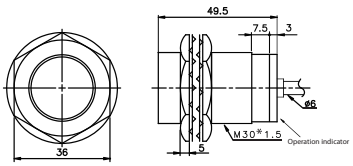


TP-R10A1, 2 2,710.-
TP-RL15A1, 2 2,820.-



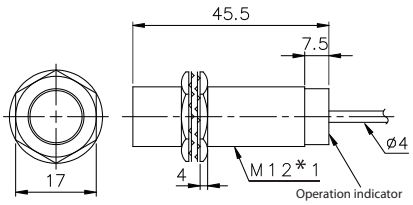


TP-R10N1, 2 2,175.-
TP-R10P1, 2 2,175.-
TP-RL15N1, 2 2,310.-
TP-RL15P1, 2 2,310.-

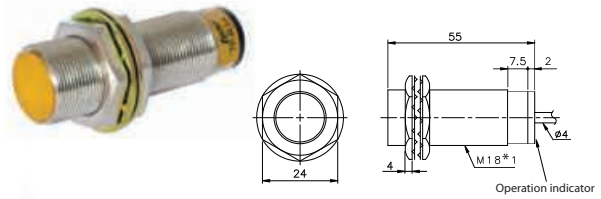




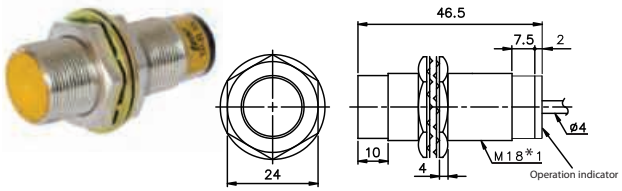
TP-R2N1, 2 1,100.-
TP-R2P1, 2 1,100.-
TP-RL4N1, 2 1,100.-
TP-RL4P1, 2 1,100.-



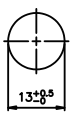
TP-R5A1, 2 1,680.-
TP-RL8A1, 2 1,950.-



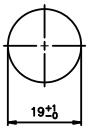
TP-R5N1, 2 1,475.-
TP-R5P1, 2 1,475.-
TP-RL8N1, 2 1,740.-
TP-RL8P1, 2 1,740.-



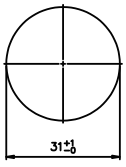
MOUNTING HOLES



TP-R2□A



TP-R5□A



TP-R10□A

tend

PROXIMITY SWITCH
พร็อคซิมิตี้สวิตช์

ISO 9002

SQUARE TYPE PROXIMITY SWITCH



FEATURES

- Economic price.
- Wide operating voltage range : 3 wires 10 to 30 V DC and 2 wires 90 to 250 V AC.
- With operation indicator LED.
- May drive 150 mA loads directly.
- DC type with reverse-polarity proof.
- DC S5, S10, S20, type with short circuit and overload proof.
- The lowest residual voltage.
- AC type are O-cross SCR output, operating stable.

DC TYPE

Item			DC Type				AC Type		
Type	NO	NPN	TP-SN5N1	TP-S5N1	TP-S10N1	TP-S20N1	TP-S5A1 (SCR)	TP-S10A1 (SCR)	TP-S20A1 (SCR)
		PNP	TP-SN5P1	TP-S5P1	TP-S10P1	TP-S20P1			
	NC	NPN	TP-SN5N2	TP-S5N2	TP-S10N2	TP-S20N2	TP-S5A1 (SCR)	TP-S10A2 (SCR)	TP-S520A2 (SCR)
		PNP	TP-SN5P2	TP-S5P2	TP-S10P2	TP-S20P2			
Detecting distance			5 mm	7 mm	10 mm	20 mm	7 mm	10 mm	20 mm
Standard detectable object (mm)			IRON 18 x 18 x 1t	IRON 25 x 25 x 1t	IRON 30 x 30 x 1t	IRON 40 x 40 x 1t	IRON 25 x 25 x 1t	IRON 30 x 30 x 1t	IRON 40 x 40 x 1t
Response frequency			1 kHz	800 Hz	500 Hz	200 Hz	20 Hz		
Rated voltage			10 - 30 V DC				90 - 250 V AC		
Current sumption			15 mA max.				2 mA max.		
Load current			150 mA max.				3 - 200 mA		
Residual voltage			1.5 V max.				7 V max.		
Ambient temperature			Operating : -20 ~ 70°C						
The variation due to the variation of operating voltage			DC Type : ± 2.5% AC Type : ± 1%						
The variation due to the variation of ammbient temperature			From -20 ~ 70°C : ± 10%						
Enclosure rating			IP 67						
Cable length			2M						

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

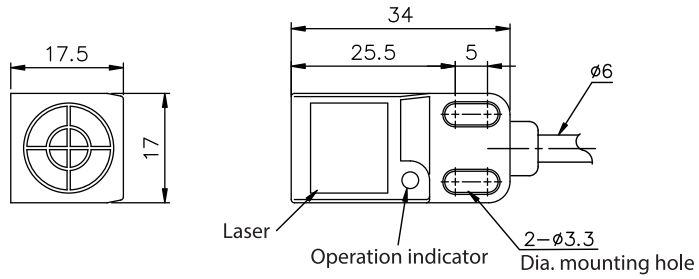
tend PROXIMITY SWITCH
พร็อคซิมิตี้สวิตช์

ISO 9002

TP-S DIMENSIONS (mm)

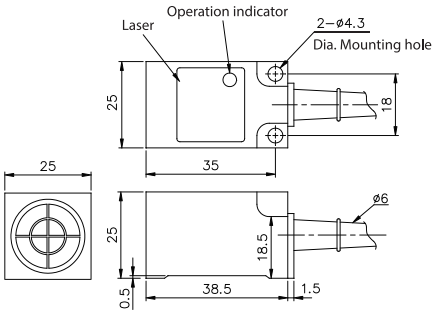
TP-SM5N1,2 (N1=NO , N2=NC) 705.-
TP-SM5P1,2 (P1=NO , P2=NC) 705.-



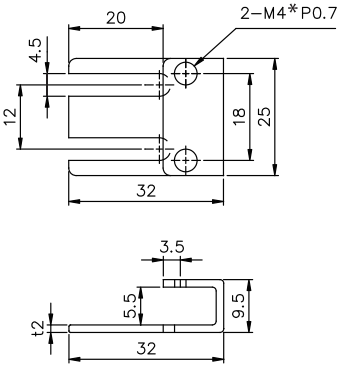


TP-S5N1,2 (N1=NO , N2=NC) 1,100.-
TP-S5P1,2 (P1=NO , P2=NC) 1,100.-
TP-S5A1,2 (A1=NO , A2=NC) 1,345.-



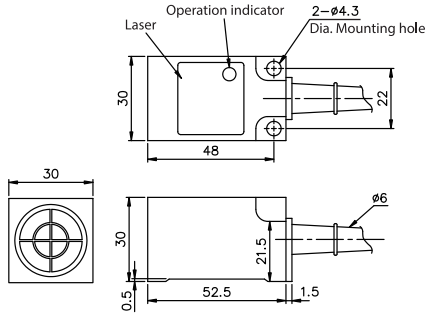


Fix bracket (mm)

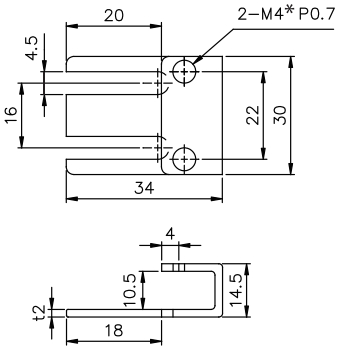


TP-S10N1,2 (N1=NO , N2=NC) 1,300.-
TP-S10P1,2 (P1=NO , P2=NC) 1,300.-
TP-S10A1,2 (A1=NO , A2=NC) 1,870.-



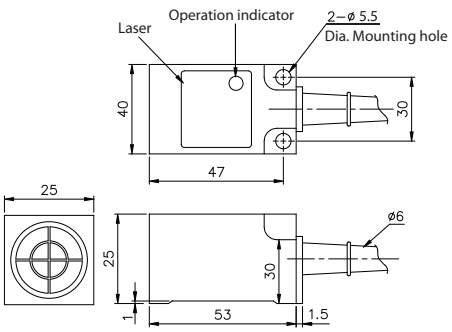


Fix bracket (mm)

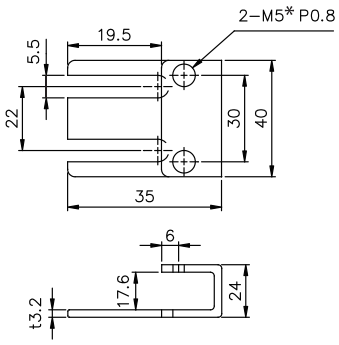


TP-S20N1,2 (N1=NO , N2=NC) 1,925.-
TP-S20P1,2 (P1=NO , P2=NC) 1,925.-
TP-S20A1,2 (A1=NO , A2=NC) 2,335.-





Fix bracket (mm)



tend MINI MICRO SWITCH
มินิไมโครสวิตช์

MODEL DESIGNATION

TMV 10 2 ☐ - C
① ② ③ ④

1.Rating
10 10A
16 16A
21 21A

2.Actuator
0 Push button type
1 Long lever type
2 Short lever type
3 Long roller type
4 Short roller type
5 Extra lever type
6 Crank lever type

3.Rating(contact)
None 1C(com bottom terminal)
S 1C(com side terminal)

4.Rating(Terminal)
C #250 Terminal
D #187 Terminal

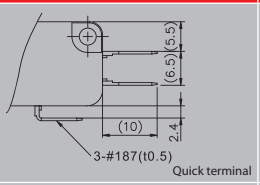
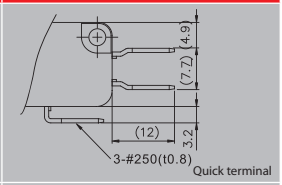
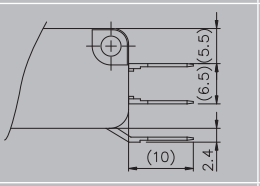
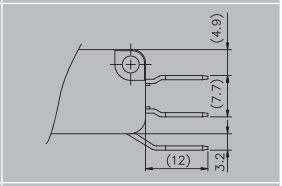
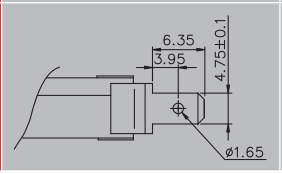
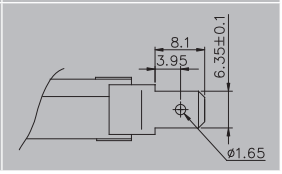
CONTACT CONFIGURATION



TYPES

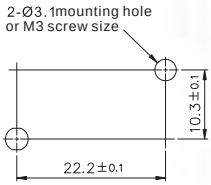
Actuator	COM terminal	Rating Contact	Rating terminal	10A	16A	21A
Push button type	Side Terminal / Bottom erminal	1C	#187 Terminal / #250 Terminal	TMV100-C/D TMV100S-C/D	TMV160-C/D TMV160S-C/D	TMV210-C/D TMV210S-C/D
Long lever type				TMV101-C/D TMV101S-C/D	TMV161-C/D TMV161S-C/D	TMV211-C/D TMV211S-C/D
Short lever type				TMV102-C/D TMV102S-C/D	TMV162-C/D TMV162S-C/D	TMV212-C/D TMV212S-C/D
Long roller type				TMV103C/D TMV103S-C/D	TMV163-C/D TMV163S-C/D	TMV213-C/D TMV213S-C/D
Short roller type				TMV104-C/D TMV104S-C/D	TMV164-C/D TMV164S-C/D	TMV214-C/D TMV214S-C/D
Extra lever type				TMV105-C/D TMV105S-C/D	TMV165-C/D TMV165S-C/D	TMV215-C/D TMV215S-C/D
Crank lever type				TMV106-C/D TMV106S-C/D	TMV166-C/D TMV166S-C/D	TMV216-C/D TMV216S-C/D

TYPE AND SHAPE OF TERMINAL

Type of terminal	#187 Terminal	#250 Terminal
Bottom Terminal		
Side Terminal		
Terminal size		

MOUNTING HOLES

Using M3 screw washer and spring washer as install. The twist force of 0.39~0.59N.m or 4~6kg.cm is recommended and applicable.



SPECIFICATIONS RATINGS

Item / Type	Rated voltage (V)	Noninductive load (A)				inductive load (A)				Inrush current (A)	
		Resistive load		Lamp load		Inductive load		Motor load			
		NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
10A	250V AC	10		1.5		6		2		24 max	
	8 V DC	10		3		6		3			
	30 V DC	6		3		6		3			
	125 V DC	0.6		0.1		0.6		0.1			
	250 V DC	0.3		0.005		0.3		0.05			
16A	250 V AC	16		2		10		3		40 max	
	8 V DC	16		4		10		6			
	30 V DC	10		4		10		4			
	125 V DC	0.6		0.1		0.6		0.1			
	250 V DC	0.3		0.05		0.3		0.05			
21A	250 V AC	21		3		12		4		50 max	
	8 V DC	21		5		12		7			
	30 V DC	14		5		12		5			
	125 V DC	0.6		0.1		0.6		0.1			
	250 V DC	0.3		0.05		0.3		0.05			

CHARACTERISTICS

Item / Type		TMV 10	TMV16	TMV21
Operating speed		0.1 mm. ~ 1 m/s		
Operating frequency		Mechanically : 240 Operations/min electrically : 20 Operations/min		
Insulation resistance		100 MΩ min (at 500 V DC)		
Contact resistance		1,000 V AC, 50/60 Hz for 1 minute		
Detectric strength	Non-continuous terminals	15 mΩ max		
	Between non-continuous terminals	TMV 10 : 1500 V AC. 50/60 Hz for 1 minute TMV16/ TMV21 : 2000 V AC, 50/60 Hz for 1 minute		
Vibration	Malfunction	10-55 Hz, 1.5 mm double amplitude		
Shock	Mechanical durability	1,000 m/sec (approx. 100 G's)		
	Malfunction	200 m/sec (approx. 20 G's)	3,000 m/sec (approx. 30 G's)	
Service life	Mechanical	20,000,000 operations min.		
	Electrically	300,000 operations min.	100,000 operations min.	
Ambient temperature		General purpose type : -25 to +80°C		
Ambient humidity		General purpose type : -85% RH max General purpose type : +5 to +35°C		
Weight		Approx : 7.2 ~ 8 g		

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MINI MICRO SWITCH
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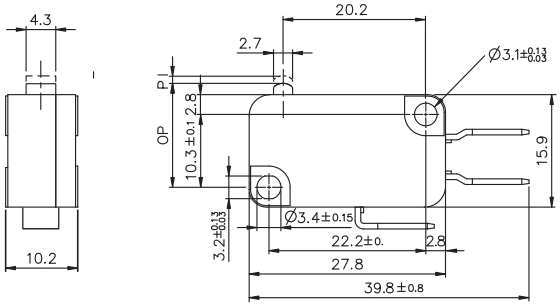
OPERATION CHARACTERISTICS

Type	TMV100	TMV101	TMV102	TMV103	TMV104	TMV105	TMV106
	TMV160	TMV161	TMV162	TMV163	TMV164	TMV165	TMV166
	TMV210	TMV211	TMV212	TMV213	TMV214	TMV215	TMV216
OF max	200 g	125 g	200 g	125 g	240 g	70 g	125 g
RF min	50 g	14 g	50 g	14 g	50 g	6 g	14 g
PT max	1.4 mm	4.0 mm	1.6 mm	4.0 mm	1.6 mm	9.0 mm	4.0 mm
OT min	0.8 mm	1.6 mm	0.8 mm	1.6 mm	0.8 mm	3.2 mm	1.6 mm
MD max	0.5 mm	1.5 mm	0.6 mm	1.5 mm	0.6 mm	2.8 mm	1.5 mm
OP	14.7 ± 0.5 mm	15.2 ± 1.2 mm	15.2 ± 0.5 mm	20.7 ± 1.2 mm	20.7 ± 0.6 mm	15.2 ± 2.5 mm	18.7 ± 1.2 mm

DIMENSIONS

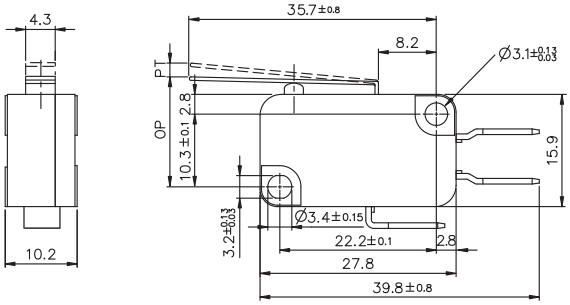
TMV100-C, TMV160-C **TMV100-C/D** **65.-** **TMV160-C/D** **80.-** **TMV210-C/D** **105.-**
TMV210-C **TMV100S-C/D** **70.-** **TMV160S-C/D** **85.-** **TMV210S-C/D** **110.-**





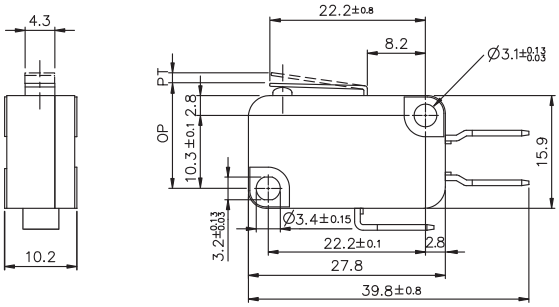
TMV101-C, TMV161-C **TMV101-C/D** **70.-** **TMV161-C/D** **80.-** **TMV211-C/D** **110.-**
TMV211-C **TMV101S-C/D** **75.-** **TMV161S-C/D** **95.-** **TMV211S-C/D** **120.-**





TMV102-C, TMV162-C **TMV102-C/D** **70.-** **TMV162-C/D** **80.-** **TMV212-C/D** **110.-**
TMV212-C **TMV102S-C/D** **75.-** **TMV162S-C/D** **85.-**





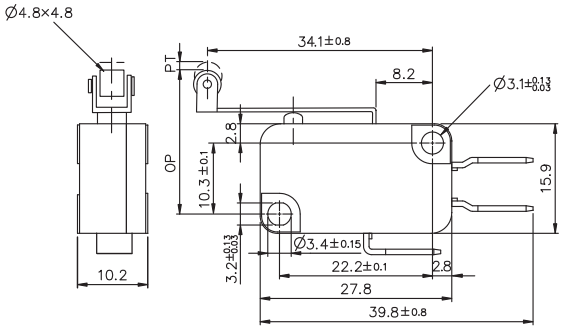
หมายเหตุ : TMVXXX-C/D Normal terminal C : # 250 Terminal
TMVXXX-C/D Side terminal D : # 187 Terminal

MINI MICRO SWITCH
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DIMENSIONS

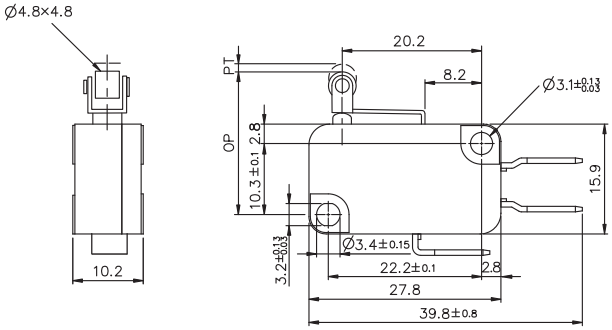
TMV103-C, TMV163-C	**TMV103-C/D**	**80.-**	**TMV163-C/D**	**90.-**	**TMV213-C/D**	**130.-**
TMV213-C	**TMV103S-C/D**	**85.-**	**TMV163S-C/D**	**100.-**	**TMV213S-C/D**	**135.-**





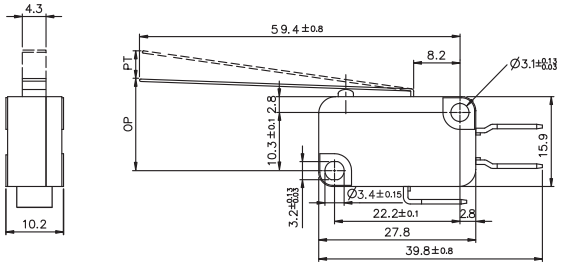
TMV104-C, TMV164-C	**TMV104-C/D**	**80.-**	**TMV164-C/D**	**90.-**	**TMV214-C/D**	**130.-**
TMV214-C	**TMV104S-C/D**	**85.-**	**TMV164S-C/D**	**-**	**TMV214S-C/D**	**135.-**





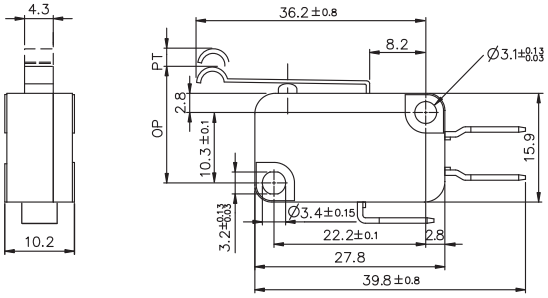
TMV105-C, TMV165-C	**TMV105-C/D**	**75.-**	**TMV165-C/D**	**85.-**	**TMV215-C/D**	**120.-**
TMV215-C	**TMV105S-C/D**	**85.-**	**TMV165S-C/D**	**100.-**	**TMV215S-C/D**	**130.-**





TMV106-C, TMV166-C	**TMV106-C/D**	**85.-**	**TMV166-C/D**	**90.-**	**TMV216-C/D**	**145.-**
TMV216-C	**TMV106S-C/D**	**95.-**	**TMV166S-C/D**	**110.-**	**TMV216S-C/D**	**155.-**





หมายเหตุ : TMVXXX-C/D Normal terminal C : # 257 Terminal
TMVXXX-C/D Side terminal D : # 187 Terminal

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ISO 9002

Best-selling basic switch boasting
Hifh precision and wide variety

FEATURES

- Wide variety of actuators
- High breaking capacity (15A)
- High precision
- Wide operating speed range

Z-15 SERIES :

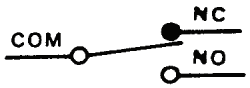
- 15A 125, 250 or 480 VAC
- 1/2A 125 V DC, 1/4 250 V DC
- 1/8 HP 125 VAC, 1/4 HP 250 VAC

RATINGS

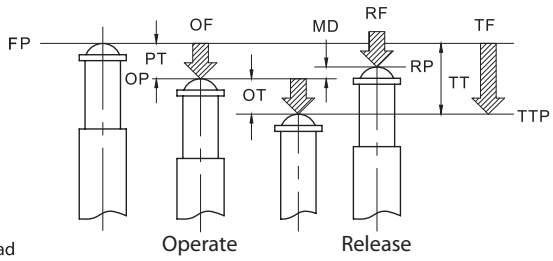
Rated voltage (V)	Non-inductive load (A)				Inductive load (A)				Inrush current (A)	
	Resistive load		Lamp load		Inductive load		Motor load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	15		3	1.5	15		5	2.5	30 max	15 max.
250 VAC	15		2.5	1.25	15		3	1.5		
500 VAC	3		1.5	0.75	2.5		1.5	0.75		
8 VAC	15		3	1.5	15		5	2.5		
14 VAC	15		3	1.5	10		5	2.5		
30 VAC	6 (2)		3	1.5	5		5	2.5		
125 VAC	0.4		0.4	0.4	0.05		0.05	0.05		
250 VAC	0.2		0.2	0.2	0.03		0.03	0.03		

NOTES :
1. Inductive load has a power factor of 0.4 min. (AC) and a time constant of 7 msec (DC)
2. Lamp load has an inrush current of 10 times the steady-state current. While motor load has an inrush current of 6 times the steady-state current.

CONTACT CONFIGURATION



DEFINITIONS OF OPERATING CHARACTERISTICS



CHARACTERISTICS

Operating speed	0.01 mm to 1 m/sec
Operating frequency	Mechanically : 240 Operations/min. Electrically : 20 operations/min.
Contact resistance	15 mΩ max. (initial)
Insulation resistance	100 MΩ min. (at 500 V DC)
Dielectric strength	1,000 V AC, 50/60 Hz for 1 minute between non-continuous terminals 2,000 V AC, 50/60 Hz for 1 minute between current carrying part and ground
Vibration	Mechanically durability : 10 to 55 Hz 1.5 mm double amplitude
Shock	Mechanically durability : Approx. 1,000 m/sec^2 (approx: 100 G's) Malfunction durability : Approx. 300 m/sec^2 (approx. 30G's)
Ambient operating termperature	General purpose type : -25°to +80°C Sealed type: -15° to 80°C
Humidity	General purpose type : 85% RH max Sealed type: 95% RH
Service life	Mechanically : 20,000,000 Operations min Electrically : 500,000 operations min.
Weight	Approx. 22 to 58g

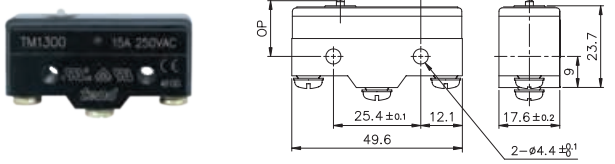
OF : Operating Force
RF : Releasing Force
TF : Total Force
FP : Free Position
OP : Operating Position
RP : Releasing Position
TTP : Total Travel Position
PT : Pretravel
OT : Overtravel
MD : Movement Differential
TT : Total Travel

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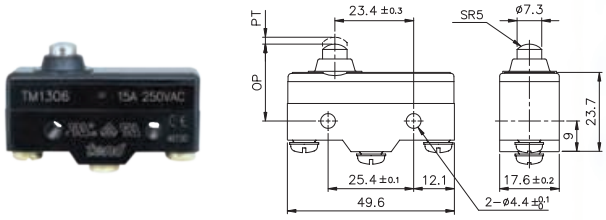
ISO 9002

DIMENSIONS

TM 1300(Z-15G-B) 15A 250V AC 175.-
TM 1300-2 20A 250V 255.-

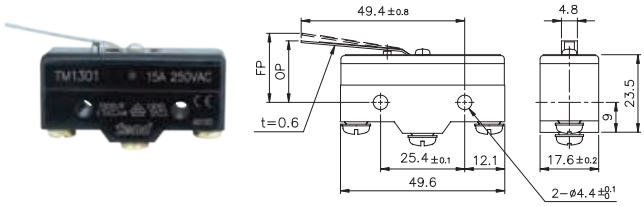


TM 1306(Z-15GD-B) 15A 250V AC 185.-
TM 1306-2 20A 250V 320.-

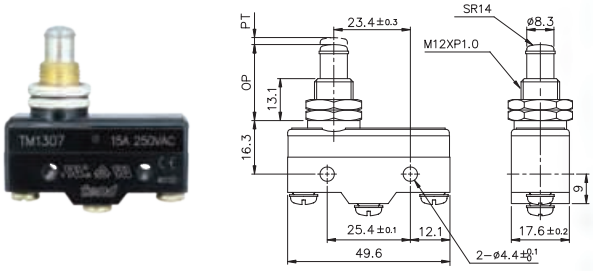


TM 1301(Z-15GL-B) 15A 250V AC 195.-
TM 1301-2 20A 250V 270.-

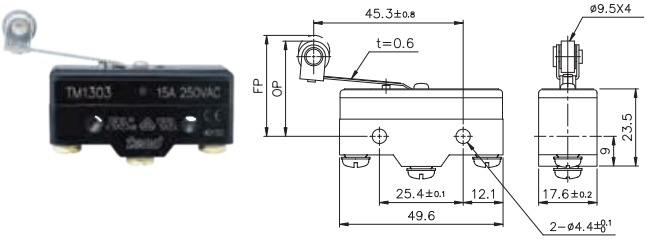
Resistive Load	Lamp Load	Inductive Load	Motor Load



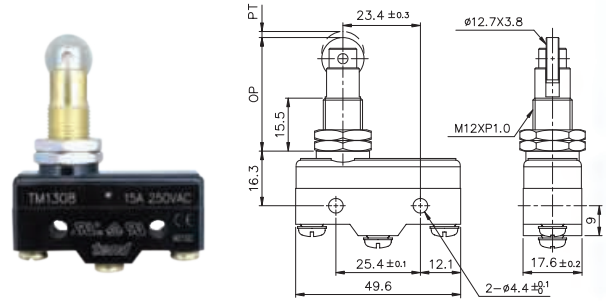
TM 1307(Z-15GQ-B) 15A 250V AC 230.-
TM 1307-2 20A 250V 345.-



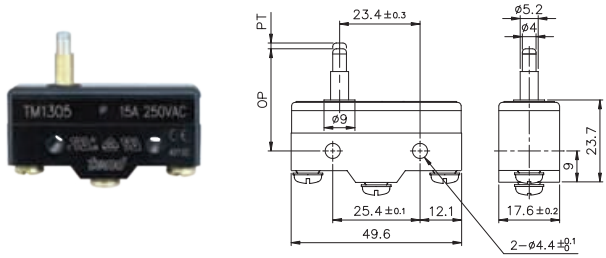
TM 1303(Z-15GL2-B) 15A 250V AC 195.-
TM 1303-2 20A 250V 290.-



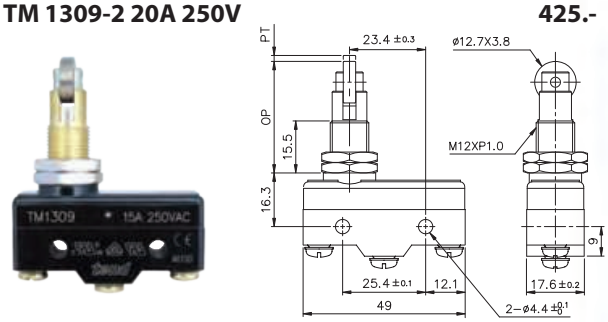
TM 1308(Z-15GQ22-B) 15A 250V AC 285.-
TM 1308-2 20A 250V 410.-



TM 1305(Z-15GS-B) 15A 250V AC 185.-
TM 1305-2 20A 250V 320.-



TM 1309(Z-15GQ21-B) 15A 250V AC 305.-
TM 1309-2 20A 250V 425.-



OPERATION CHARACTERISTICS

Type	TM 1300	TM 1301	TM 1303	TM 1305	TM 1306	TM 1307	TM 1308	TM 1309
OF max	350 g	300 g	300 g	350 g	350 g	350 g	350 g	350 g
RF min	114 g	50 g	50 g	114 g	114 g	114 g	114 g	114 g
PT max	0.4 mm	4 mm	4 mm	0.4 mm	0.4 mm	0.4 mm	0.4 mm	0.4 mm
OT min	0.13 mm	1.6 mm	1.6 mm	1.6 mm	1.6 mm	5.5 mm	3.58 mm	3.58 mm
MD max	0.05 mm	1.3 mm	1.3 mm	0.05 mm	0.05 mm	0.05 mm	0.05 mm	0.05 mm
FP max		20.6 mm	31.8 mm					
OP	15.9 ±0.4 mm	17.4 ±0.8 mm	28.6 ±0.8 mm	28.2 ±0.5 mm	21.5 ±0.5 mm	21.8 ±0.8 mm	33.4 ±1.2 mm	33.4 ±1.2 mm

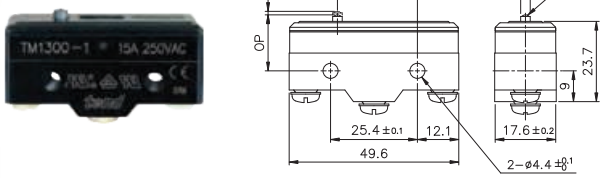
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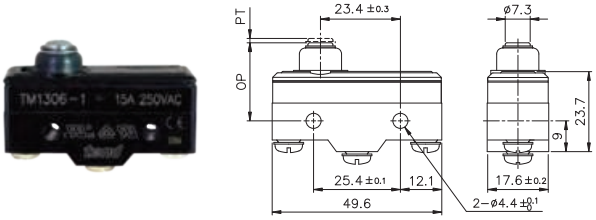
ไมโครสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น ISO 9002

DIMENSIONS

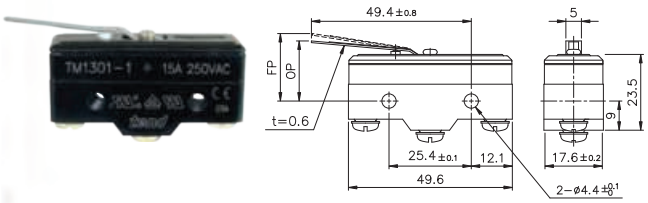
TM 1300-1(15A 250V AC) 250.-



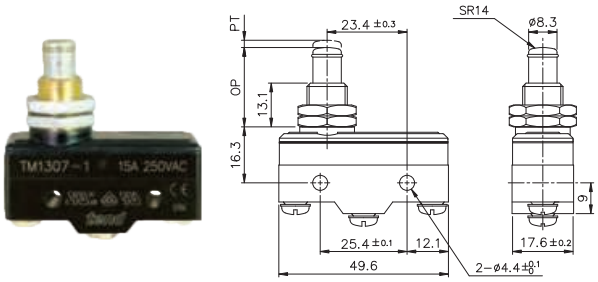
TM 1306-1(15A 250V AC) 285.-



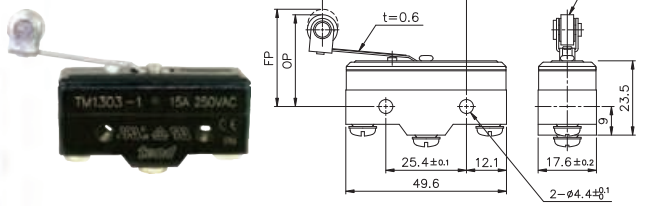
TM 1301-1(15A 250V AC) 265.-



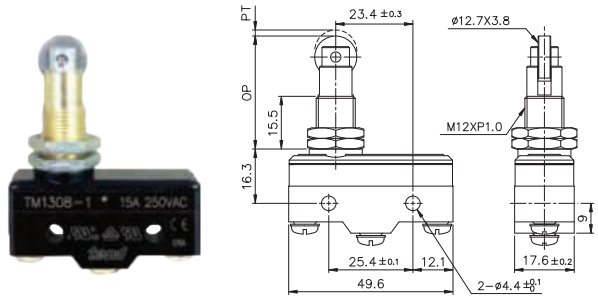
TM 1307-1(15A 250V AC) 325.-



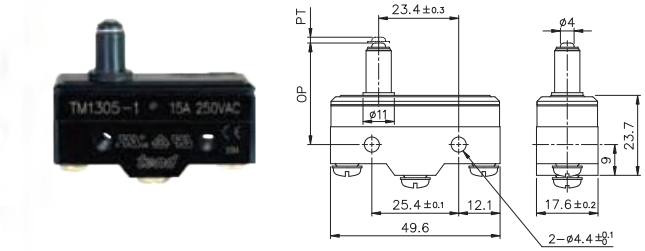
TM 1303-1(15A 250V AC) 285.-



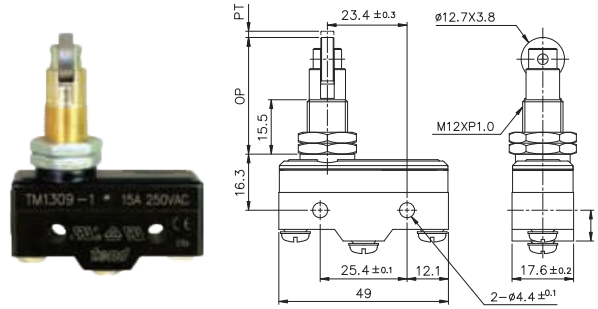
TM 1308-1(15A 250V AC) 400.-



TM 1305-1(15A 250V AC) 285.-



TM 1309-1(15A 250V AC) 400.-



OPERATION CHARACTERISTIC

Type	TM1300-1	TM1301-1	TM1303-1	TM1305-1	TM1306-1	TM1307-1	TM1308-1	TM1309-1
OF max	500 g	400 g	400 g	500 g	500 g	500 g	500 g	500 g
RF min	114 g	50 g	50 g	114 g	114 g	114 g	114 g	114 g
PT max	0.4 mm	4 mm	4 mm	0.4 mm	0.4 mm	0.4 mm	0.4 mm	0.4 mm
OT min	0.13 mm	1.6 mm	1.6 mm	1.6 mm	1.6 mm	5.5 mm	3.58 mm	3.58 mm
MD max	0.05 mm	1.3 mm	1.3 mm	0.05 mm	0.05 mm	0.05 mm	0.05 mm	0.05 mm
FP max		20.6 mm	31.8 mm					
OP	15.9 ± 0.4 mm	17.4 ± 0.8 mm	28.6 ± 0.8 mm	28.2 ± 0.5 mm	21.5 ± 0.5 mm	21.8 ± 0.8 mm	33.4 ± 1.2 mm	33.4 ± 1.2 mm

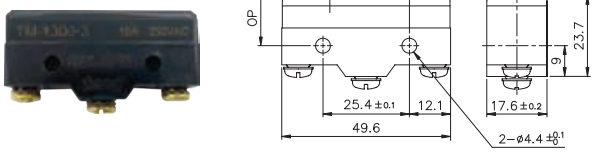
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tend MICRO SWITCH

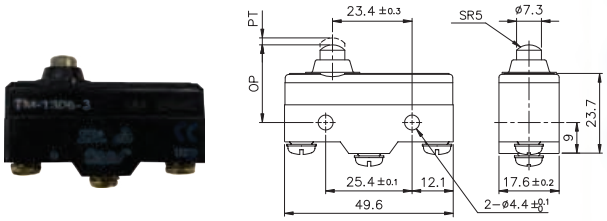
ไมโครสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น ISO 9002

DIMENSIONS

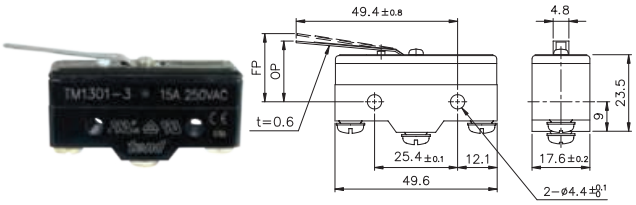
TM 1300-3(20A 250V AC) 305.-
TM 1303-12 305.-



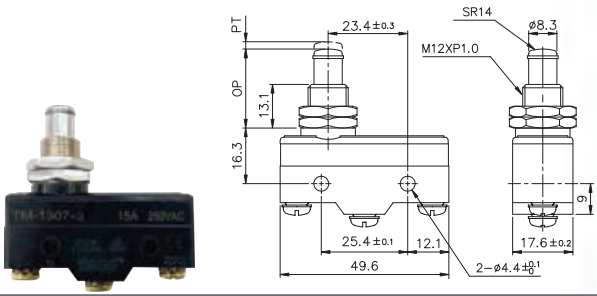
TM 1306-3(20A 250V AC) 340.-



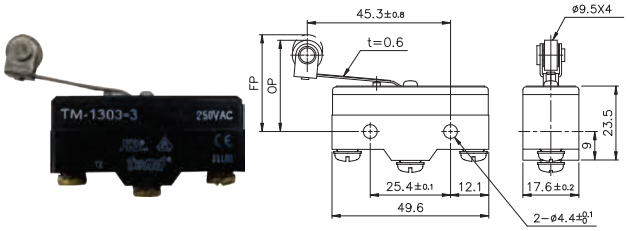
TM 1301-3(20A 250V AC) 370.-



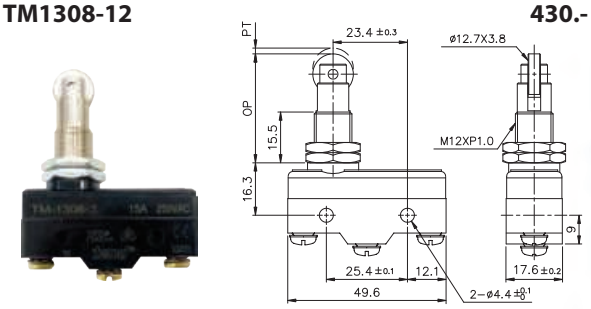
TM 1307-3(20A 250V AC) 370.-



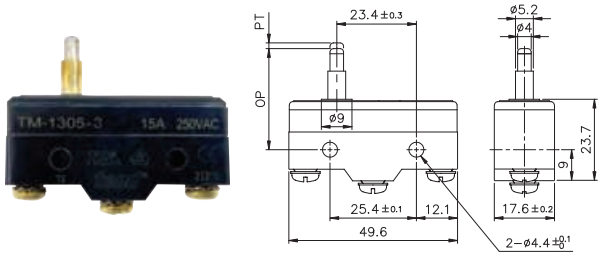
TM 1303-3(20A 250V AC) 325.-
TM 1303-12



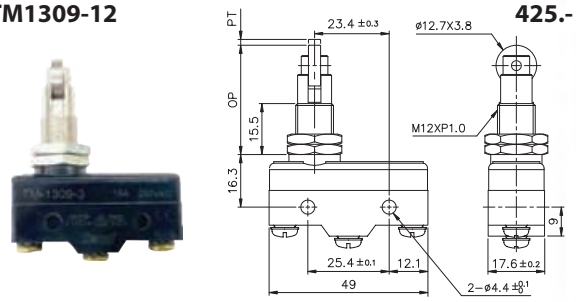
TM 1308-3(20A 250V AC) 430.-
TM1308-12 430.-



TM 1305-3(20A 250V AC) 340.-



TM 1309-3(20A 250V AC) 425.-
TM1309-12 425.-



OPERATION CHARACTERISTIC

Type	TM1300-3	TM1301-3	TM1303-3	TM1305-3	TM1306-3	TM1307-3	TM1308-3	TM1309-3
OF max	850 g	450 g	450 g	800 g	800 g	800 g	800 g	800 g
RF min	200 g	50 g	50 g	200 g	200 g	200 g	200 g	200 g
PT max	0.7 mm	4 mm	4 mm	0.7 mm	0.7 mm	0.7 mm	0.7 mm	0.7 mm
OT min	0.13 mm	1.6 mm	1.6 mm	1.6 mm	1.6 mm	5.5 mm	3.58 mm	3.58 mm
MD max	0.2 mm	1.3 mm	1.3 mm	0.2 mm	0.2 mm	0.2 mm	0.2 mm	0.2 mm
FP max		20.6 mm	31.8 mm					
OP	15.9 ± 0.4 mm	17.4 ± 0.8 mm	28.6 ± 0.8 mm	28.2 ± 0.5 mm	21.5 ± 0.5 mm	21.8 ± 0.8 mm	33.4 ± 1.2 mm	33.4 ± 1.2 mm

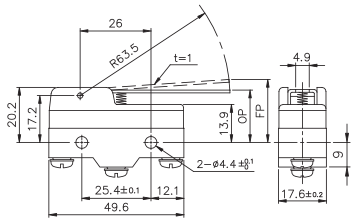
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MICRO SWITCH
ไมโครสวิตช์

ISO 9002

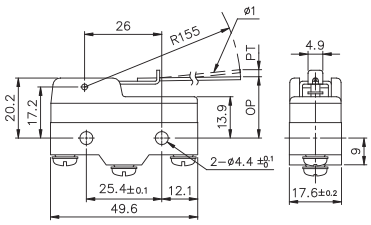
TM1701(15A 250V AC) **220.-**
TM1701-2 20A 250V **320.-**





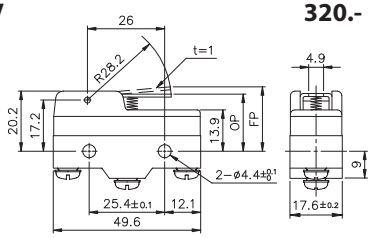
TM1705(15A 250V AC) **275.-**
TM1705-2 20A 250V **400.-**





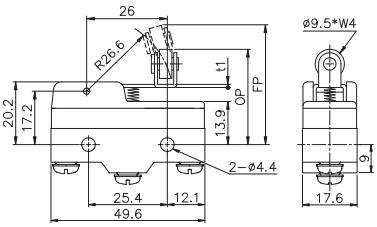
TM1702(15A 250V AC) **200.-**
TM1702-2 20A 250V **320.-**





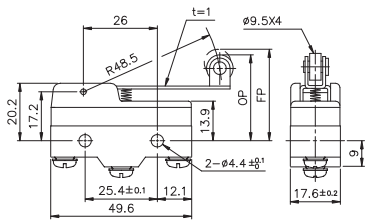
TM1707(15A 250V AC) **330.-**





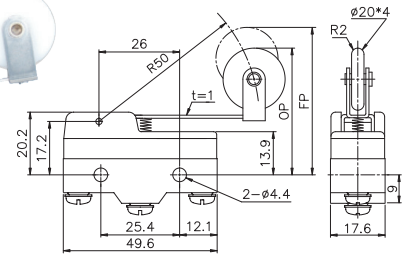
TM1703(15A 250V AC) **210.-**
TM1703-2 20A 250V **325.-**





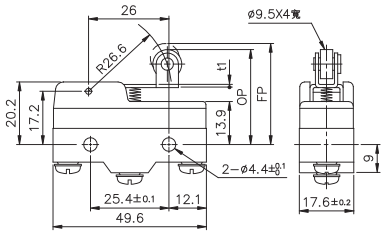
TM1709(15A 250V AC) **385.-**





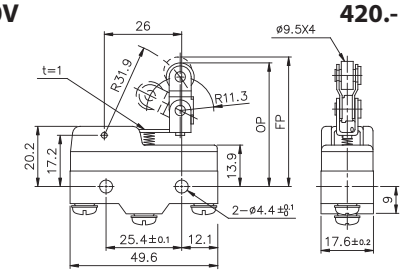
TM1704(15A 250V AC) **210.-**
TM1704-2 20A 250V **325.-**





TM1743(15A 250 VAC) **300.-**
TM1743-2 20A 250V **420.-**





OPERATION CHARACTERISTICS

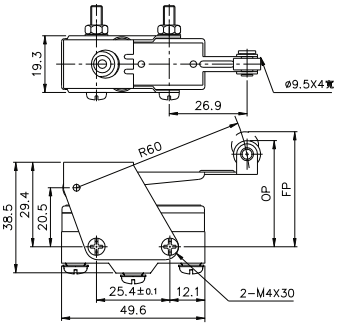
Type	TM1701	TM1702	TM1703	TM1704	TM1705	TM1707	TM1709	TM1743
OF max	70 g	100 g	160 g	160 g	10 g	170 g	100 g	160 g
RF min	14 g	28 g	22 g	42 g	3 g	42 g	21 g	42 g
PT max	10 mm	5 mm	7.1 mm	2.7 mm	20 mm	2.7 mm	7.3 mm	2.7 mm
OT min	5.6 mm	2 mm	4 mm	2.4 mm	5.6 mm	2.4 mm	4 mm	2.4 mm
MD max	1.27 mm	1 mm	1.02 mm	0.5 mm	3 mm	0.5 mm	1.6 mm	0.5 mm
FP max	28.2 mm	24.8 mm	36.5 mm	32.5 mm		33.3mm	47.5 mm	43.6 mm
OP	19 ± 0.8 mm	19 ± 0.8 mm	30.2 ± 0.8 mm	30.2 ± 0.4 mm	19 ± 0.8 mm	31 ± 0.4 mm	41.2 ± 0.8 mm	43.1 ± 0.8 mm

tend MICRO SWITCH
ไมโครสวิตช์

ISO 9002

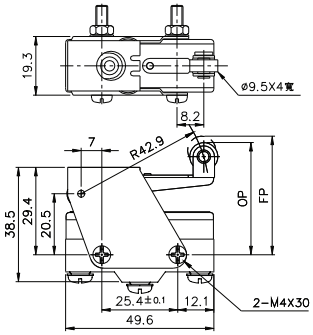
TM1401(15A 250 VAC)	290.-
TM1401-2 20A 250V	-
TM1401-1(15A 250VAC) กันน้ำ	375.-
TM1401-3(20A 250VAC) กันน้ำ	455.-





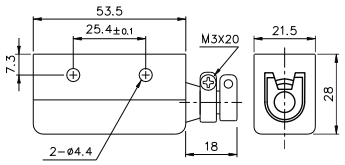
TM1501(15A 250 VAC)	290.-
TM1501-2 20A 250V	395.-
TM1501-1(15A 250VAC) กันน้ำ	375.-
TM1501-3(20A 250VAC) กันน้ำ	455.-





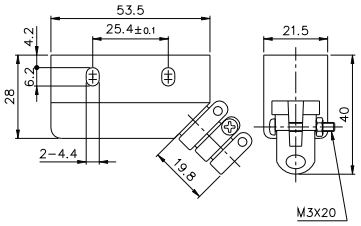
TAP-X 40.-





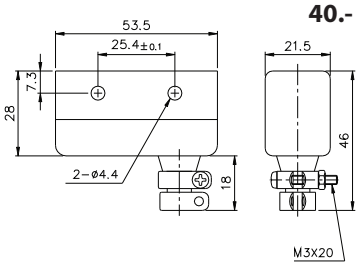
TAP-Y 40.-





TAP-Z 40.-





OPERATION CHARACTERISTICS

Type	TM1401	TM1501
OF max	500 g	600 g
RF min	170 g	300 g
PT max	5 mm	3 mm
OT min	12.7 mm	6 mm
MD max	2.2 mm	2 mm
FP max	44.5 ± 1.6 mm	41 ± 1.6 mm
OP	40.4 ± 1.6 mm	40.4 ± 1.6 mm

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MICRO SWITCH

ไมโครสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น ISO 9002

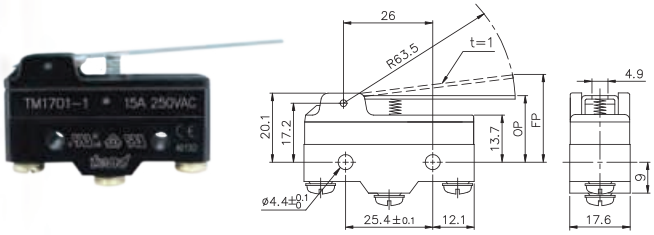
OPERATION CHARACTERISTICS

- Surrounding joints are sealed by epoxy, and waterproof, oiltight rubber boot.
- Dust-preventive, waterproof and oiltight.

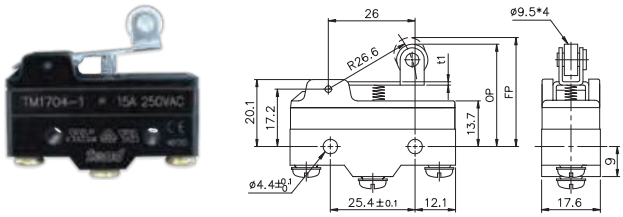
Type	TM 1701-1	TM 1702-1	TM 1703-1	TM 1704-1	TM1705-1	TM 1743-1
OF max	100 g	190 g	130 g	190 g	40 g	190 g
RF min	14 g	28 g	21 g	42 g	3 g	50 g
PT max	10 mm	5 mm	7.1 mm	2.7 mm	20 mm	2.7 mm
OT min	5.6 mm	2 mm	4 mm	2.4 mm	5.6 mm	2.4 mm
MD max	2 mm	1 mm	1.6 mm	0.8 mm	4 mm	0.8 mm
FP max	28.2 mm	25 mm	36.5 mm	32.9 mm		43.6 mm
OP	19 ± 0.8 mm	19 ± 0.8 mm	30.2 ± 0.8 mm	30.2 ± 0.4 mm	19±0.8 mm	41.3 ± 0.8 mm

DIMENSIONS

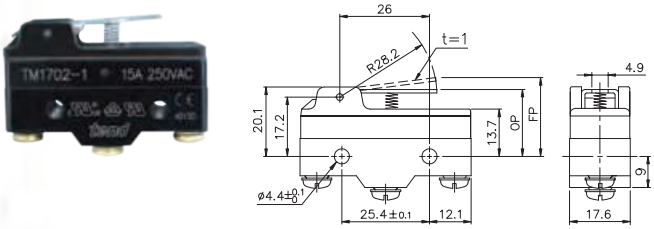
TM1701-1(15A 250V AC) **285.-**



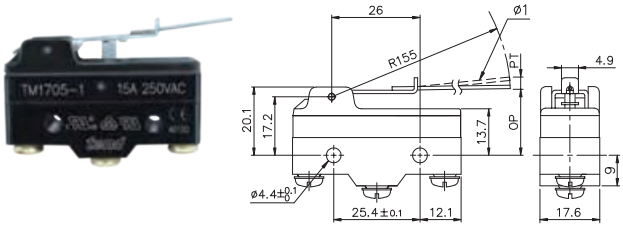
TM1704-1(15A 250V AC) **310.-**



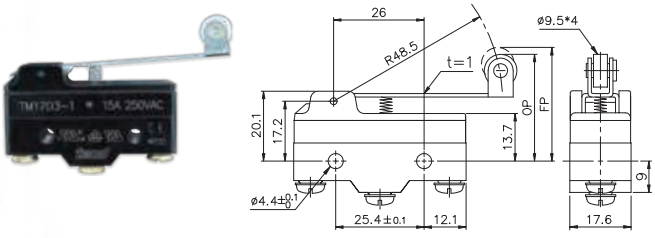
TM1702-1(15A 250V AC) **285.-**



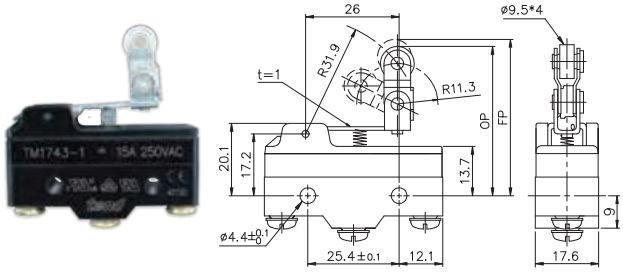
TM1705-1(15A 250V AC) **360.-**



TM1703-1(15A 250V AC) **310.-**



TM1743-1(15A 250V AC) **385.-**



tend MICRO SWITCH

ไมโครสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น ISO 9002

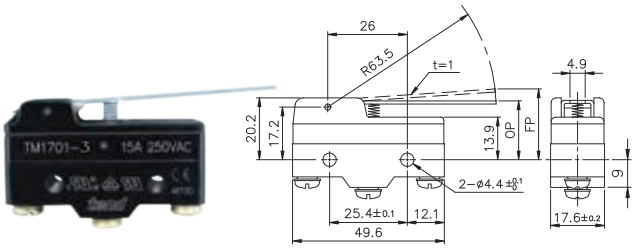
OPERATION CHARACTERISTICS

- Surrounding joints are sealed by epoxy, and waterproof, oiltight rubber boot.
- Dust-preventive, waterproof and oiltight.

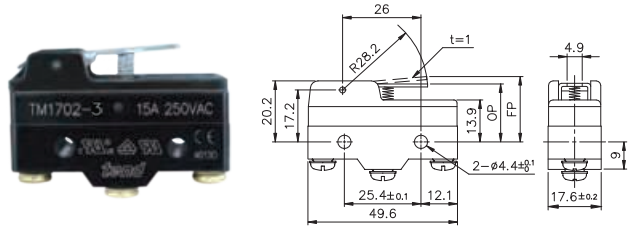
Type	TM 1701-3	TM 1702-3	TM 1703-3	TM 1704-3	TM 1707-3	TM 1709-3	TM 1743-3
OF max	110 g	210 g	150 g	220 g	220 g	150 g	200 g
RF min	14 g	28 g	22 g	42 g	42 g	21 g	42 g
PT max	10 mm	5 mm	7.1 mm	2.7 mm	2.7 mm	7.3 mm	2.7 mm
OT min	5.6 mm	2 mm	4 mm	2.4 mm	2.4 mm	4 mm	2.4 mm
MD max	1.27 mm	1 mm	1.02 mm	0.5 mm	0.5 mm	1.6 mm	0.5 mm
FP max	28.2 mm	24.8 mm	36.5 mm	32.5 mm	32.5 mm	47.5 mm	43.6 mm
OP	19 ± 0.8 mm	19 ± 0.8 mm	30.2 ± 0.8 mm	30.2 ± 0.8 mm	30.2 ± 0.8 mm	41.2 ± 0.8 mm	41.3 ± 0.8 mm

DIMENSIONS

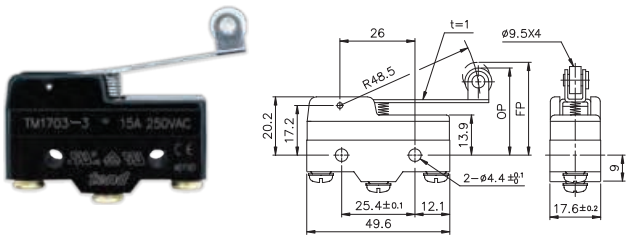
TM1701-3(20A 250V AC) **340.-**



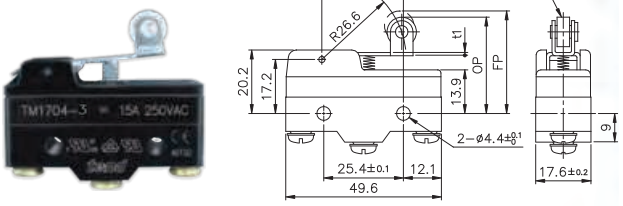
TM1702-3(20A 250V AC) **-**



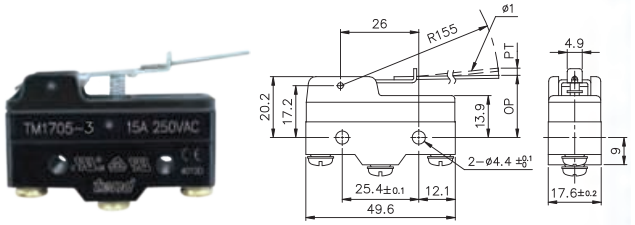
TM1703-3(20A 250V AC) **340.-**
TM1703-12 **340.-**



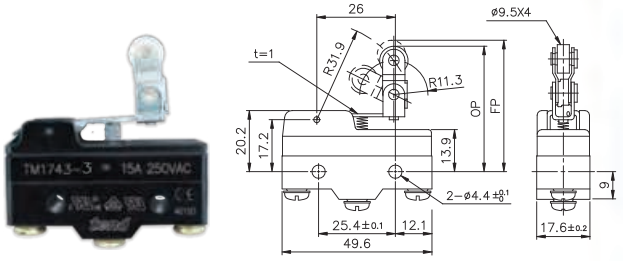
TM1704-3(20A 250V AC) **340.-**
TM1704-12 **340.-**



TM1705-3(20A 250V AC) **425.-**
TM1705-12 **-**



TM1743-3(20A 250V AC) **440.-**
TM1743-12 **440.-**



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MICRO SWITCH (TWO CIRCUIT DOUBLE-BREAK)

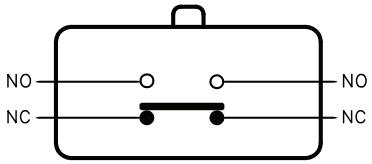
ไมโครสวิตช์

ISO 9002

RATINGS

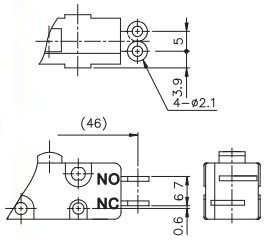
Rated voltage (V)	Non-inductive load (A)				Inductive load (A)				Inrush current (A)	
	Resistive load		Lamp load		Inductive load		Motor load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125 V AC	10		3	1.5			4	2	30 max.	15 max.
250 V AC	10		2	1	10		3	1.5		
8 V DC	10		6	3	10		6			
14 V DC	10		6	3	10		6			
30 V DC	6		4	3	6.0		4			
125 V DC	0.8		0.2	0.2	0.8		0.2			
250 V DC	0.4		0.1	0.1	0.4		0.1			

CONTACT CONFIGURATION

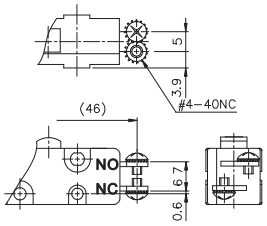


TERMINAL TYPE

TW-101A Solder Type



TW-101B Screw Type

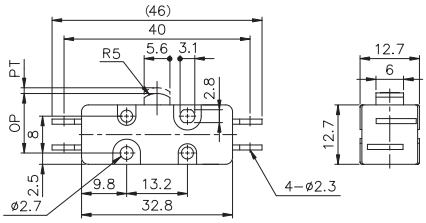


OPERATION CHARACTERISTICS

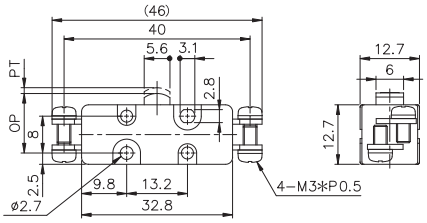
Type	TW-101 A/B	TW-102 A/B	TW-104 A/B
OF max	400 g	200 g	240 g
RF min	114 g	60 g	70 g
PT max	1.6 mm	3.5 mm	3 mm
OT min	0.25 mm	1.8 mm	1.2 mm
MD max	0.65 mm	1.6 mm	2 mm
OP	11.7 ± 0.4 mm	14.6 ± 0.8 mm	25.3 ± 0.8 mm

TW-101A — 145.-



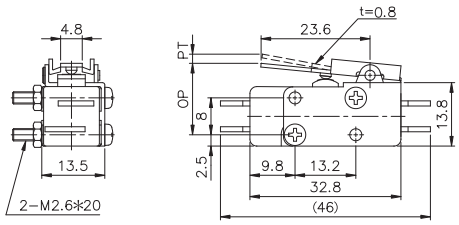


TW-101B — 160.-

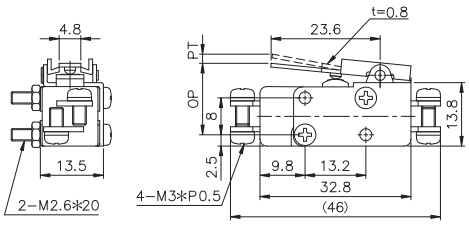


TW-1012A — 180.-



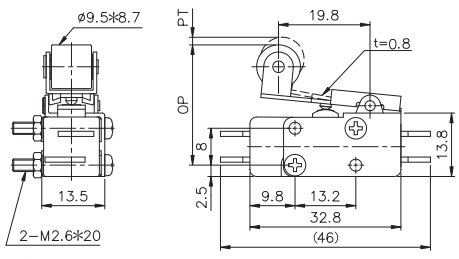


TW-1012B — 200.-

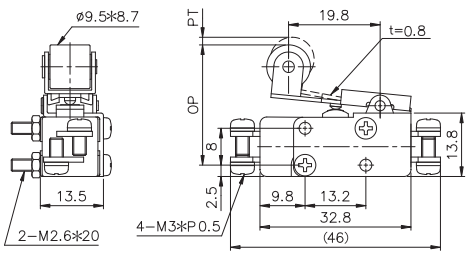


TW-1014A — 210.-





TW-1014B — 235.-



tend LIMIT SWITCH FOR DIRECT CURRENT

ลิมิตสวิตช์ใช้ไฟ DC

ISO 9002

FEATURES

- Similar to TEND TM series micro switch
- Put a magnet in the contact block to prevent fire.
- The safety switch for DC usage.

SPECIFICATIONS RATINGS

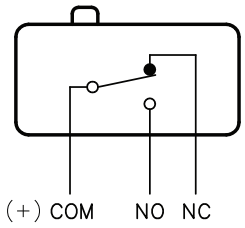
Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
8 V DC	15		3	1.5	15	15	5	2.5
14 V DC	15		3	1.5	15	10	5	2.5
30 V DC	15		3	1.5	10	10	5	2.5
125 V DC	10		3	1.5	7.5	6	5	2.5
250 V DC	3		3	1.5	2	2	2	1.5

NOTES : 1. Inductive load has a power factor of 0.4 min. (AC) and a time constant of 7 msec. Max. (DC)
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steady-state current.

CHARACTERISTICS

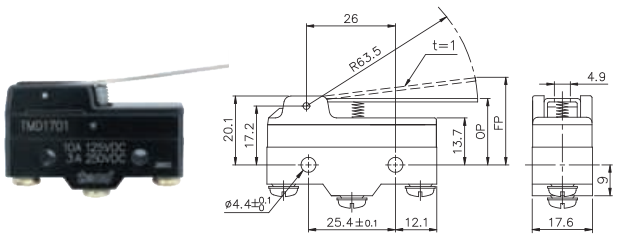
Operating speed	0.1 mm to 1 m/s
Operating frequency	Mechanically : 240 Operations/min.
	Electrically : 20 operations/min.
Contact resistance	15 mΩ max. (initial)
Insuration resistance	100 MΩ max.(at 500 V DC)
Dielectric strength	1,500 V AC, 50/60 Hz for 1 minute
Vibration	10 to 55 Hz 1.5 mm double amplitude
Shock	Mechanically : Approx. 1,000 m/sec2 (approx: 100 G's)
	Electrically : Approx. 300 m/sec2 (approx. 30G's)
Ambient ermperature	-25° ~ +85°C
Ambient humidity	Below 85% RH
Service life	Mechanically : 1,000,000 Operations/min
	Electrically : 100,000 operations/min.
Weight	Approx. 27 g ~ 36 g

CONTACT CONFIGURATION

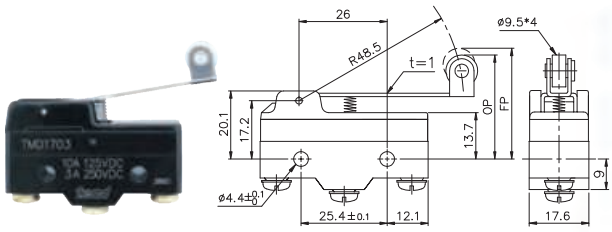


DIMENSIONS

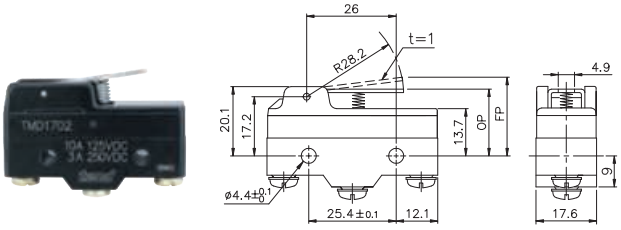
TMD1701 625.-



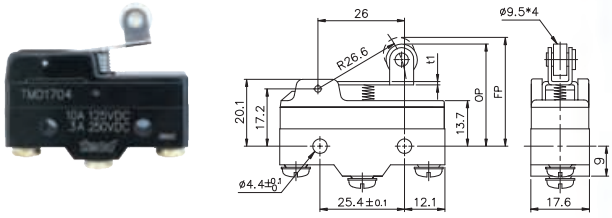
TMD1703 625.-



TMD1702 625.-



TMD1704 625.-



OPERATION CHARACTERISTICS

Type	TMD1701	TMD1702	TMD1703	TMD1704
OF max	110gf (1.08N)	250gf (2.45N)	145gf (1.42N)	220gf (2.16N)
RF min	14gf (0.14N)	32gf (0.31N)	21gf (0.21N)	35gf (0.34N)
OT min	4.8 mm	2.1 mm	4 mm	2.4 mm
MD max	3.9 mm	1.7 mm	3 mm	1.7 mm
FP max	34.6 mm	25.5 mm	40.5 mm	37.1 mm
OP	19.8 ± 0.8 mm	20.7 ± 0.8 mm	32.2 ± 0.8 mm	32.2 ± 0.8 mm

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend COMPACT LIMIT SWITCH

คอมแพคลิมิตสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น

FEATURES

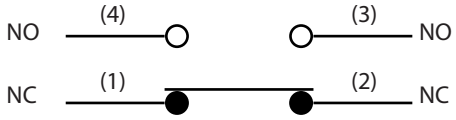
- Two-circuit double-break limits switches
- Rigid die cast switch housing.Made up of zinc alloy and reinforced plastic.
- Small sized, oil-tight, water-proof
- Inbuilt with a micro switch with double read structure for longer mechanical service life
- Larger over travel operations
- Catheter design for easy wiring
- Many types of actuator. Easy to use.

SPECIFICATIONS RATINGS

Rated voltage (V)	Non-inductive load(A)				Inductive load(A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125V AC	5	5	1.5	0.7	3	3	2	1
250V AC	5	5	1	0.5	3	3	1.5	0.8
8V DC	5	5	3	3	5	4	3	3
14V DC	5	5	3	3	4	4	3	3
30V DC	5	5	3	3	4	4	3	3
125V DC	0.4	0.4						
250V DC	0.2	0.2						
Inrush current	N.C : 24A max.			N.O : 12A max.				

Note : 1. Inductive load : power factor = 0.4 (AC)
: time constant = 7 msec (DC)
2. Lamp load has an inrush current of 10 times the steady-state current while motor load has an inrush current of 6 times the steady-state current.

CONTACT CONFIGURATION



CHARACTERISTICS

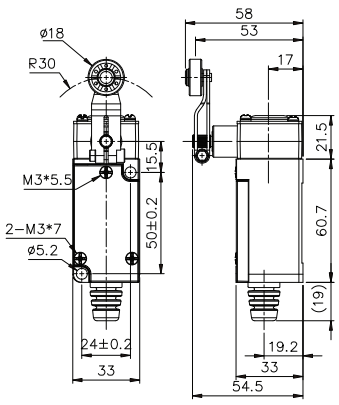
Operating speed	0.5 mm. to 50 cm/s
Operating frequency	Mechanically : 120 operations/min Electrically : 30 operations/min
Contact resistance	25 mΩ (max.) (initial)
Insulation resistance	100 MΩ max. (at 500VDC)
Dielectric strength	1,000 V AC, 50/60 Hz, for 1 minute between non-continuous terminals; 1,500 V AC, 50/60 Hz, for 1 minute between non-current-carrying metal part and between each terminal and ground.
Vibration	10 to 55 Hz, 1.5 mm double amplitude
Shock	Mechanical durability : approx. 1,000m/sec² (approx.30G'S) Malfunction durability: approx. 500m/sec² (approx.30G'S)
Ambient temperature	Operating : -5 to + 65 ℃
Humidity	95% RH max.
Service life	Mechanically : 10,000,000 operations min. Electrically : 500,000 operations min.
Weight	Approx. 130 to 190g
Degree of protection	IEC : IP65

OPERATING CHARACTERISTICS

Type	TZ-1104	TZ-1108	TZ-1107	TZ-1111	TZ-1112 TZ-1122	TZ-1166 TZ-1168 TZ-1167 TZ-1169
OF max	750g	750g	750g	900g	900g	150g
RF min	100g	100g	100g	150g	150g	-
PT max	20°	20°	20°	1.5mm	1.5mm	30mm
OT min	50°	50°	50°	4mm	4mm	-
MD max	12°	12°	12°	1mm	1mm	-
OP	-	-	-	26±0.8mm	37±0.8mm	-

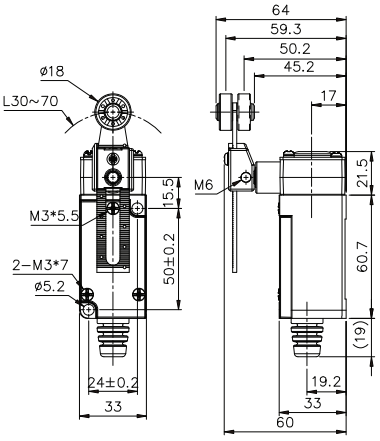
TZ-1104 **825.-**





TZ-1108 **870.-**



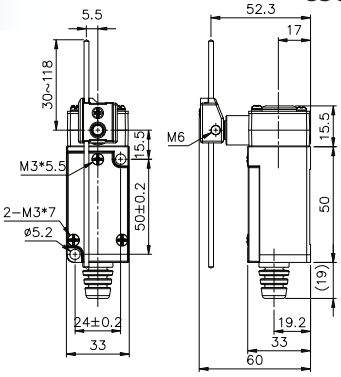


tend COMPACT LIMIT SWITCH

คอมแพคลิมิตสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น

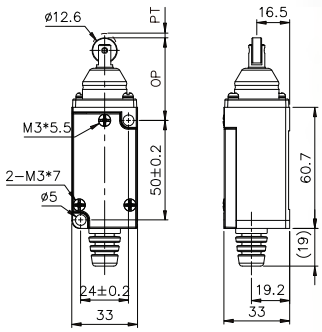
TZ-1107 850.-





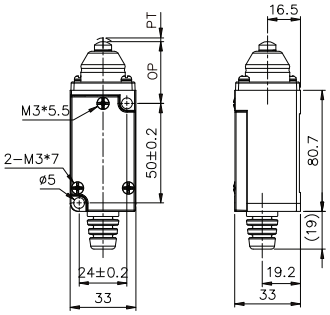
TZ-1112 -





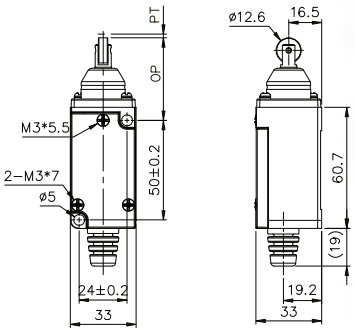
TZ-1111 825.-





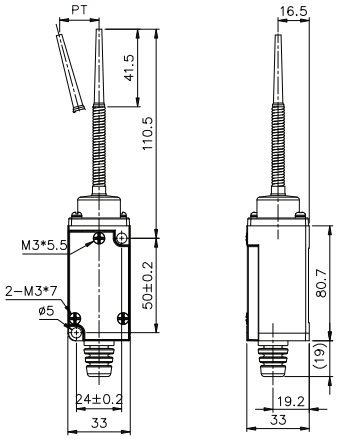
TZ-1122 -





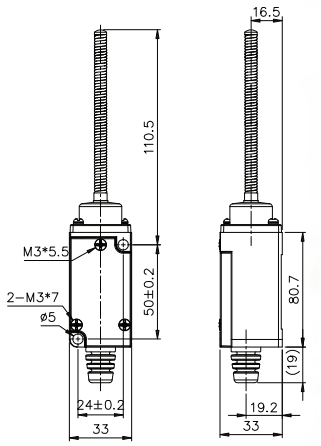
TZ-1166 825.-





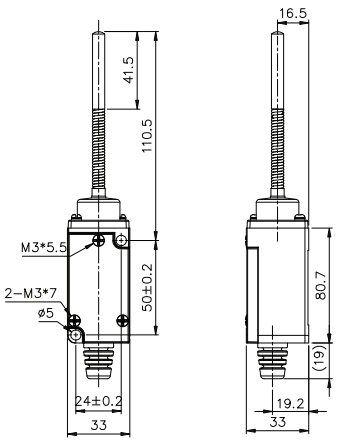
TZ-1167 825.-





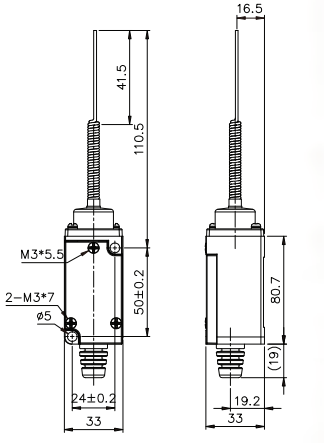
TZ-1168 905.-





TZ-1169 825.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend COMPACT LIMIT SWITCH

คอมแพคลิมิตสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น

SPECIFICATIONS RATINGS

Rated voltage (V)	Non-inductive load(A)				Inductive load(A)				Inrush current (A)	
	Resistive load		Lamp load		Inductive load		Motor load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125V AC	5		1.5		3		2	1	10 max.	10 max.
250V AC	5		1.5		3		1	0.5		
8V DC	5		-		1.5		-			
14V DC	5		-		1.5		-			
30V DC	5		-		1.5		-			
125V DC	0.5		-		0.05		-			
250V DC	0.25		-		0.03		-			

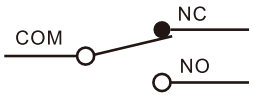
OPERATING CHARACTERISTICS

Type	TZ-2311	TZ-2312
OF max	1200g	1200g
RF min	500g	500g
PT max	1.5mm	1.5mm
OT min	3mm	3mm
MD max	(0.1mm)	(0.1mm)
OP	0.8±0.8	31.4±0.8

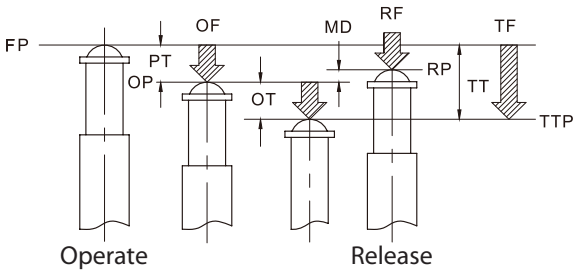
CHARACTERISTICS

Operating speed	0.01 mm to 1 m/sec (Plunger Type)
Operating frequency	Mechanically : 240 operations/min Electrically : 20 operations/min
Contact resistance	15 mΩ (max.) (initial)
Insulation resistance	100 MΩ min. (at 500VDC)
Dielectric strength	1,000 V AC, 50/60 Hz, for 1 minute between non-continuous terminals; 1,500 V AC, 50/60 Hz, for 1 minute between current-carrying metal part and ground.
Vibration	(*10 ~ 20 Hz): 1.5 mm double amplitude Malfunction durability: 10 ~ 55 Hz
Shock	Mechanical durability : 1,000m/sec² (approx.100G'S) Malfunction durability: 300m/sec² (approx.30G'S)
Ambient temperature	-10 ℃ ~ +80 ℃ (Not freezing)
Humidity	Max. 95% RH
Service life	Mechanically : 10,000,000 operations min. Electrically : 500,000 operations min.
Weight	Approx. 22 to 58g
Degree of protection	IEC : IP65

CONTACT CONFIGURATION



DEFINITIONS OF OPERATING CHARACTERISTICS

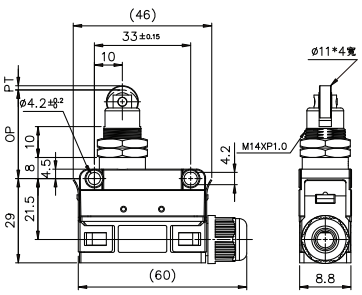


OF : Operating Force
RF : Releasing Force
TF : Total Force
FP : Free Position
OP : Operating Position
RP : Releasing Position
TTP : Total Travel Position
PT : Pretravel
OT : Overtravel
MD : Movement Differential
TT : Total Travel

APPEARANCE AND DIMENSIONS

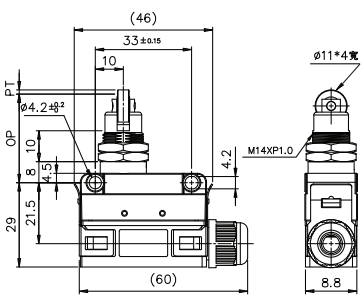
TZ-2311 **605.-**





TZ-2312 **605.-**





tend

COMPACT PREWIRED LIMIT SWITCH

คอมแพค พรีไวร์ ลิมิตสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น

A009142

SPECIFICATIONS

- DPDS Limit switch for multiple applications.
- Rugged aluminum alloy diecast housing.
- High mechanical strength
- Oil resistance, waterproof and dust proof structure

RATINGS

Reted voltage (V)	Non-inductive load (A)				Inductive load (A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 V AC	5 (0.1)		1.5	0.7	3		2.5	1.3
250 V AC	3		1	0.5	2		1.5	0.8
8 V DC	5 (0.1)		2		5	4	3	
14 V DC	5 (0.1)		2		4	4	3	
30 V DC	4 (0.1)		2		3	3	3	
125 V DC	0.4		0.05		0.4		0.05	
250 V DC	0.2		0.03		0.2		0.03	

CHARACTERISTICS

Rating	5A 125 V AC, 3A 250 V AC
Operating speed	1 mm ~1 m/s
Operating frequency	Mechanically: 120 operations/min. Electrically : 30 operations/min.
Contact resistance	15 mΩ max. (initial)
Insulation resistance	100 MΩ min. (at 500 V DC)
Dielectric strength	1,000 V AC, 50/60 Hz for 1 minute between noncontinuous terminals 1,500 V AC, 50/60 Hz for 1 minute between current carrying and non-current carrying parts and between each terminal and ground
Vibration	10 ~ 55 Hz 1.5 mm double amplitude
Shock	Mechanically Approx : 1,000 m/s²(Approx:100G's) Electrically : Approx : 500 m/s² (approx. 50G's)
Ambient ermperature	-10° ~ +70°C
Humidity	Below 95% RH
Service life	Mechanically : 1,000 operations/ min
	Electrically : 20 operations/min.
Degree of protection	IEC: IP67
Weight	Approx. 360 g (cable lenght 3 m)
	Approx. 540 g (cable lenght 5 m)

OPERATING CHARACTERISTICS

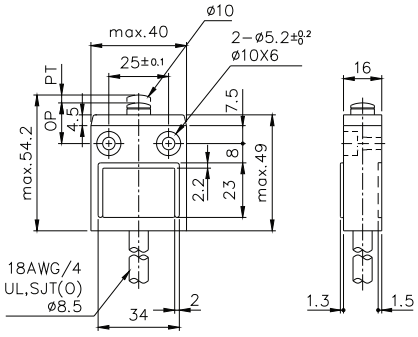
Type	TZ-3101	TZ-3102	TZ-3103	TZ-3104	TZ-3110
OF max	1200 gf (11.77N)	1200 gf (11.77N)	1200 gf (11.77N)	580 gf (5.69N)	1200 gf (11.77N)
RF min	450 gf (4.41N)	450 gf (4.41N)	450 gf (4.41N)	150 gf (1.47N)	450 gf (4.41N)
PT max	1.8 mm	1.8 mm	1.8 mm	25°	1.8 mm
OT min	3 mm	3 mm	3 mm	40°	3 mm
MD max	0.2 mm	0.2 mm	0.2 mm	3°	0.2 mm
OP	15.7 ± 1 mm	28.5 ± 1 mm	28.5 ± 1 mm	-	28.5 ± 1 mm

Type	TZ-3111	TZ-3112	TZ-3113	TZ-3169
OF max	1800 gf (17.65N)	1800 gf (17.65N)	1800 gf (17.65N)	150 gf (1.47N)
RF min	450 gf (4.41N)	450 gf (4.41N)	450 gf (4.41N)	-
PT max	1.8 mm	1.8 mm	1.8 mm	15°
OT min	3 mm	3 mm	3 mm	-
MD max	0.2 mm	0.2 mm	0.2 mm	-
OP	24.9 ± 1 mm	34.3 ± 1 mm	34.3 ± 1 mm	-

DIMENSIONS

TZ-3101 **1,805.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend COMPACT PREWIRED LIMIT SWITCH

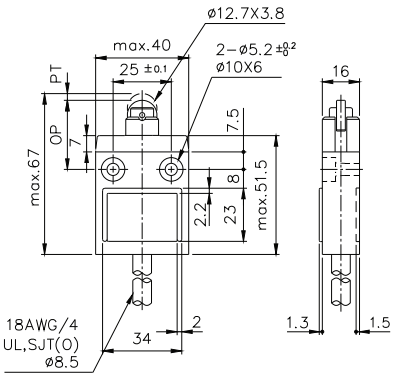
คอมแพค พรีไวร์ ลิมิตสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น

A009142

DIMENSIONS

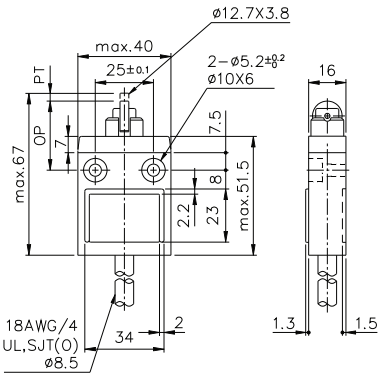
TZ-3102 — 1,805.-





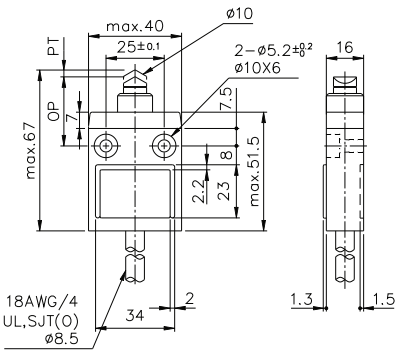
TZ-3103 — 1,805.-





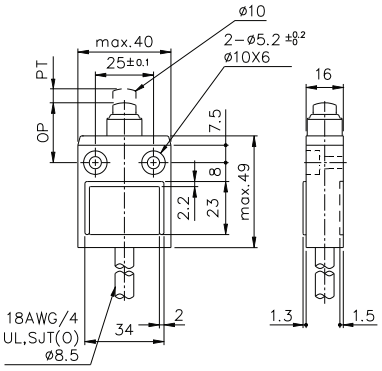
TZ-3110 — 1,805.-





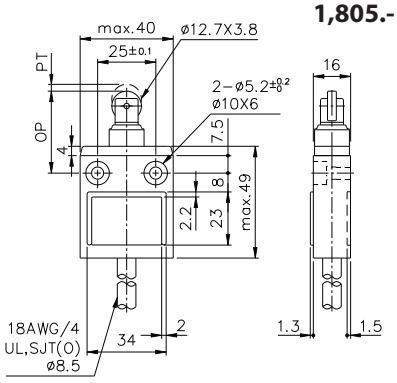
TZ-3111 — 1,805.-





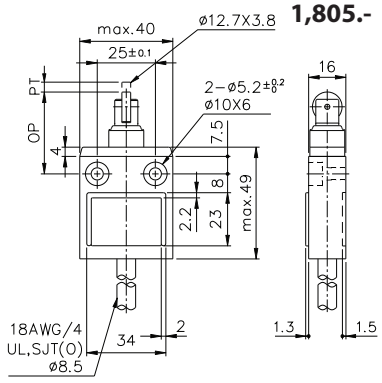
TZ-3112 — 1,805.-





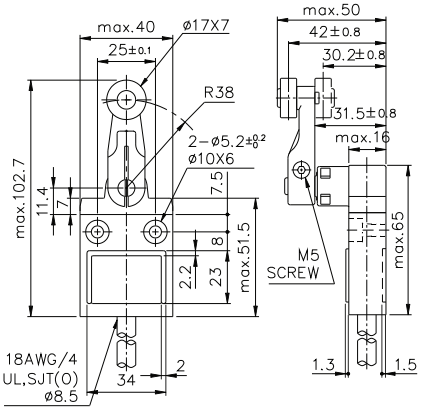
TZ-3113 — 1,805.-





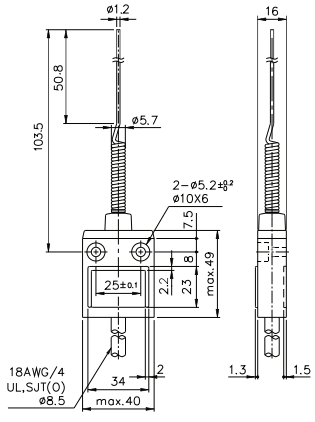
TZ-3104 — 1,805.-





TZ-3169 — 1,805.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

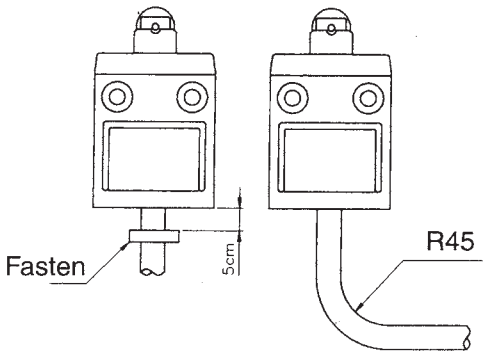
tend COMPACT PREWIRED LIMIT SWITCH

คอมแพค พรีไวร์ ลิมิตสวิตช์ ชนิดกันน้ำ, กันน้ำมัน, กันฝุ่น

A009142

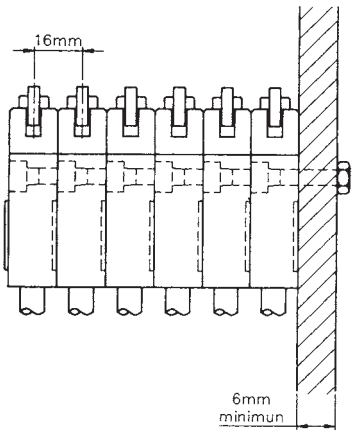
FASTENING OF THE SWITCH CABLE

The switch bodies are filled with resin for sealing purposes. To avoid stressing the cable and switch body, fasten the cable at 5 cm or farther away from the switch body. Should the wire be bent. The bending radius shall be at least 45 mm.



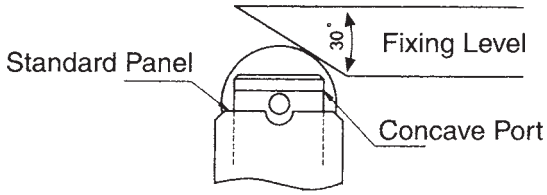
SWITCH BANK MOUNTING

A maximum of six switches may be mounted together as a switch bank . During the installation, the convex part of the switch back. The mounting panel shall be 6 mm or thicker.



INSTALLATION

The service life and accuracy of switches will be effected by the shape of actuator operation frequency & over travel. So the angular of the fixing level should be about 30° the surface finish of the fixing level should be over, the hardness is from HV400~500. When installing, the position of the concave part should be above the standard panel.

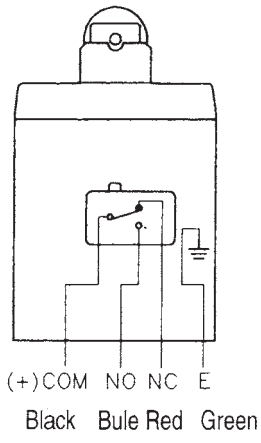


MOUNTING

Recommended tightening torque according to the following form.

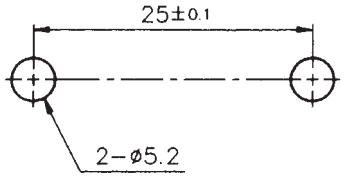
Model	Screw type	Torque
1	M5 fastening screws	4.9~5.88 N.m (50 ~ 60 kgf.cm)
2	M3.5 installing screws	0.78~0.88 N.m (8 ~ 9 kgf.cm)

CONTACT TYPES



MOUNTING HOLES

Mount the switch body to a rigid mounting panel using two M5 screws



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend LIMIT SWITCH
ลิมิตสวิตช์ IP67

A009142

Wide Selection of Two-circuit Double-break Limit Switches

FRATURES

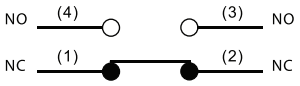
- Rigid diecast switch housing
- Set position indicator plate for easy maintenance
- High mechanical strength
- Oiltight, waterproof and dust proof construction

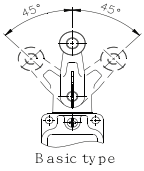
SPECIFICATIONS RATING

Rated voltage (V)	Non-inductive load(A)				Inductive load(A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 V AC	10	10	3	1.5	10		5	2.0
250 V AC	5	5	2	1	5		3	1.0
480 V AC	3	3	1.5	0.8	3		1.5	0.8
600 V AC	1	1	1	0.5	1.5		1	0.5
8 V AC	10		6	3	10		6	
14 V DC	10		6	3	10		6	
30 V DC	6		4	3	6		4	
125 V DC	0.8		0.2	0.2	0.8		0.2	
250 V DC	0.4		0.1	0.1	0.4		0.1	

NOTES : 1. Inductive load has a power factor = 0.4; time constant = 7 msec.
2. Lamp load has an inrush current of 10 times the steady-state current while motor load has an inrush current of 6 times the steady-state current.

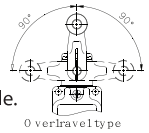
CONTACT CONFIGURATION





OVERTRAVEL TYPE

The Overtravel Type is a limit switch which is provided with a greater OT to facilitate dog setting. Since this type is identical to the Basic Type in dimensions, both types are interchangeable. The Overtravel Type is Classified into two versions -2 series and -2N series.



J2 SERIES

The head of -2 series switch can be installed in any of the four directions.
90° Operation on only one side - impossible
90° Operation on either side - possible

J2N SERIES

The head of -2N series switch can be installed only in two directions. Forward and backward.
90° Operation on only one side - possible
90° Operation on either side - possible



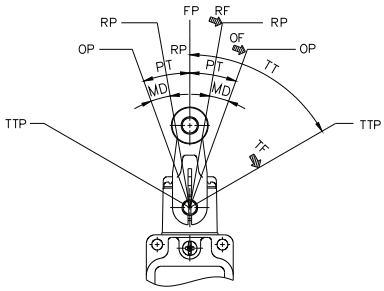
Loosen the cam holder with a coin or screw driver

Reverse the cam

Reverse the position of the cam and reinstall

CHARACTERISTICS

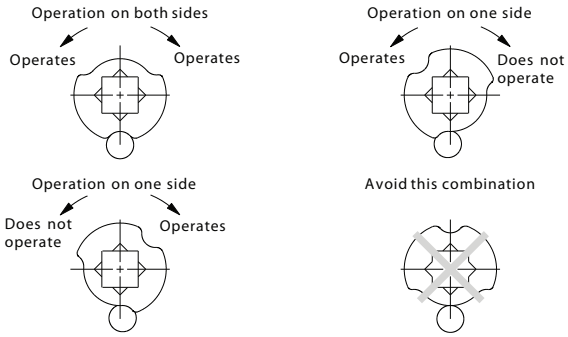
Operating speed	1 mm to 2 m/sec (TZ-5104)
Operating frequency	Mechanically: 120 operations/min Electrically : 30 operations/min
Contact resistance	15 mΩ max. (initial)
Insulation resistance	100 MΩ max.(at 500 V DC)
Dielectric strength	1,000 V AC, 50/60 Hz for 1 minute between noncontinuous terminals. 2,200 V AC, 50/60 Hz for 1 minute between each terminal and non-current carrying metal part and between each terminal and ground
Temperature rise	50 degrees max.
Vibration	Malfunction durability : 10 to 55 Hz. 1.5 mm double amplitude
Shock	Mechanical durability : approx 1,000 m/sec2 (approx: 100 G's) Malfunction durability : approx 300 m/sec2 (approx. 30G's)
Ambient temperature	Operating : -10°~+80°C
Humidity	95% RH max
Service life	Mechanical : 15,000,000 operations min.
	Electrically : 500,000 operations min.
Weight	Approx. 275 g (with Type TZ-5104)
Degree of protection	IEC : IP 67



OF : Operating Force
RF: Releasing Force
TF: Total Force
FP: Free Position
OP: Operating Position
RP: Releasing Position
TTP: Total Travel Position
PT: Pretravel
OT: Overtravel
MD: Movement Differential
TT: Total Travel

90° operation on one side is possible by simply changing the direction of the cam.

Relationship of cam to operation as observed from the rear of switch



tend LIMIT SWITCH
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OPERATING CHARACTERISTICS

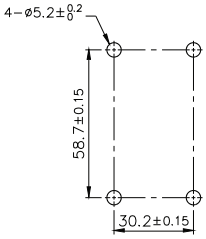
Operating characteristics \ Type	TZ-5101	TZ-5102	TZ-5104	TZ-5105	TZ-5107	TZ-5108
OF max.	2,720 g	2,720 g	1,360 g	1,200 g	142 g	1,360 g
RF min.	910 g	910 g	227 g	-	28°	227 g
PT max.	1.7 mm	1.7 mm	20°	55°	20°	20°
OT min.	6.4 mm	5.6 mm	30°	35°	30°	30°
MD max.	1 mm	1 mm	12°	-	12°	12°
TTP max.	29.5 mm	39.5 mm	-	-	-	-
OP	OP : 34 ± 0.8 mm	44 ± 0.8 mm	-	OP: 90 ± 10°	-	-

OPERATING CHARACTERISTICS

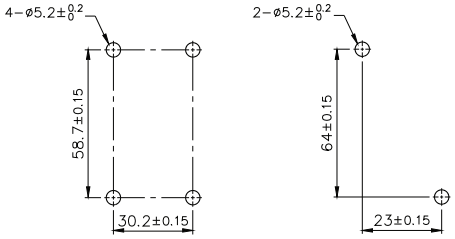
Type	TZ-5104-2 / TZ-5108-2	TZ-5104-2N / TZ-5108-2N	TZ-5106 / TZ-5169	TZ-5107-2	TZ-5107-2N
OF max.	1000 g	980 g	150 g	290 g	290 g
RF min.	100g	120 g	-	25g	25g
PT max.	20°	20°	28 mm	20°	20°
OT min.	55°	70°	-	55°	70°
MD max.	12°	10°	-	12°	10°

MOUNTING HOLES

Basic type and -2 SERIES



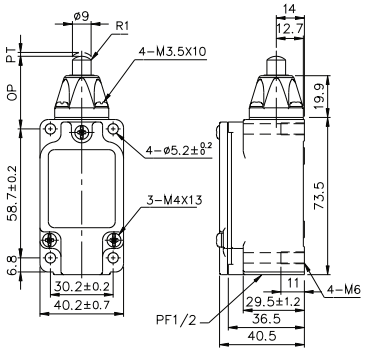
-2N SERIES



DIMENSIONS

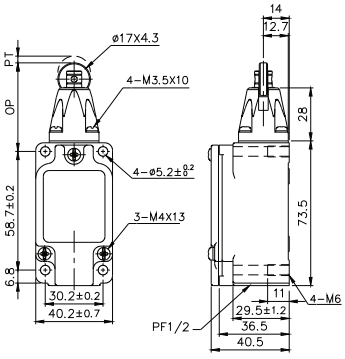
TZ-5101 — 1,035.-





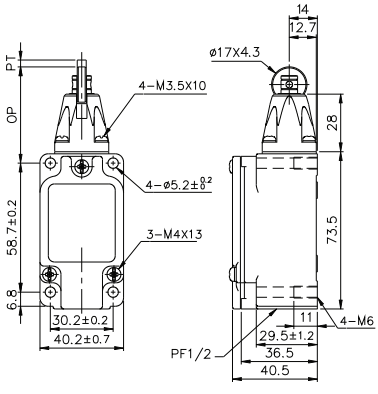
TZ-5102 — 1,080.-





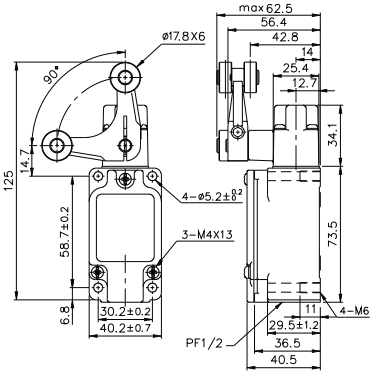
TZ-5103(HL-5000) — 1,080.-





TZ-5105(WLCA32-41) — 1,700.-





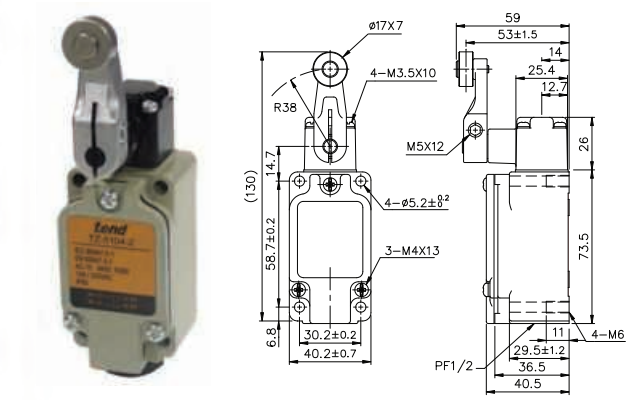
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

LIMIT SWITCH
ลิมิตสวิตช์ IP67

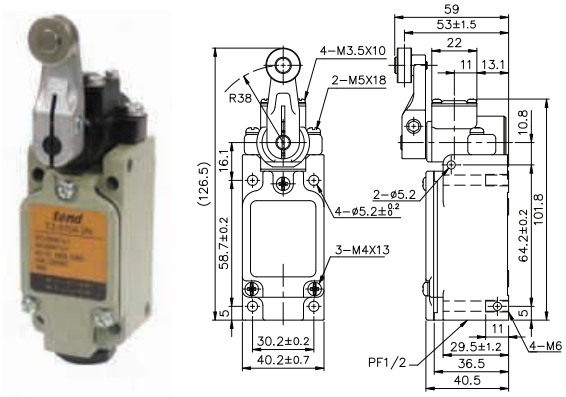
A009142

DIMENSIONS

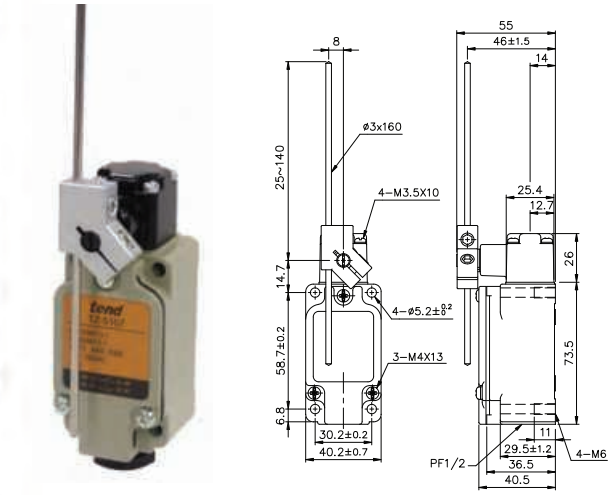
TZ-5104 (WLCA2) 1,090.-
TZ-5104-2 (WLCA2-2) 1,225.-



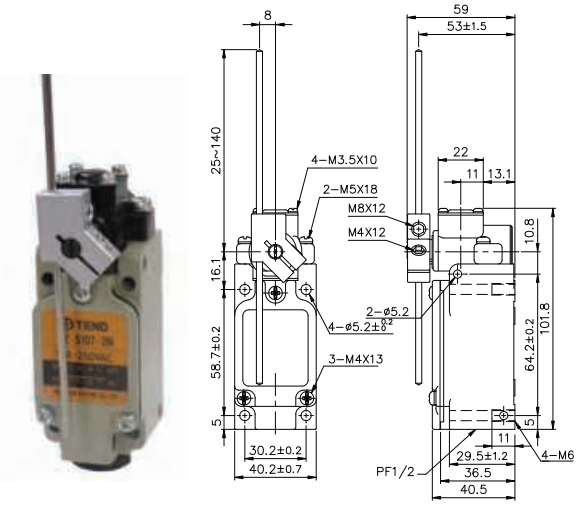
TZ-5104-2N (WLCA2-2N) 1,275.-



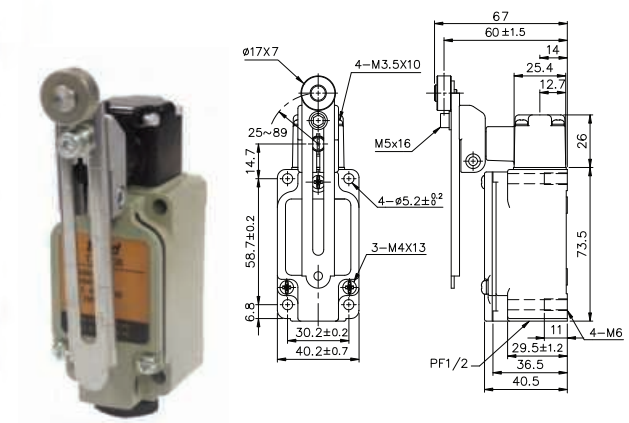
TZ-5107 (WLCL) 1,175.-
TZ-5107-2 (WLCL-2) 1,265.-



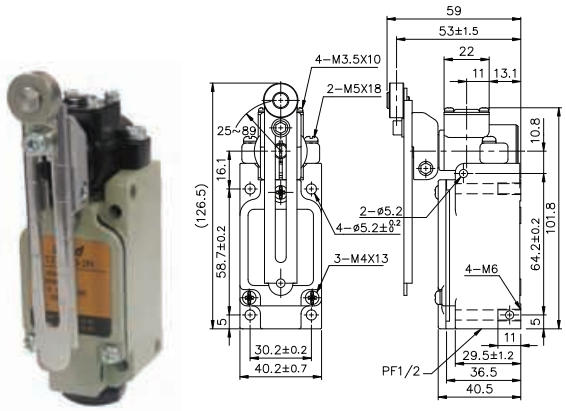
TZ-5107-2N (WLCL-2N) 1,360.-



TZ-5108 (WLCA12) 1,255.-
TZ-5108-2 (WLCA12-2) 1,355.-



TZ-5108-2N (WLCA-2N) 1,425.-



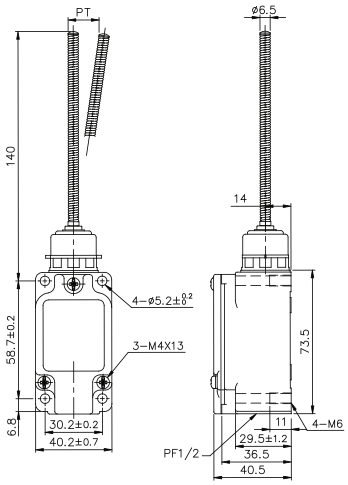
tend LIMIT SWITCH
ลิมิตสวิตช์ IP67

A009142

DIMENSIONS(Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions)

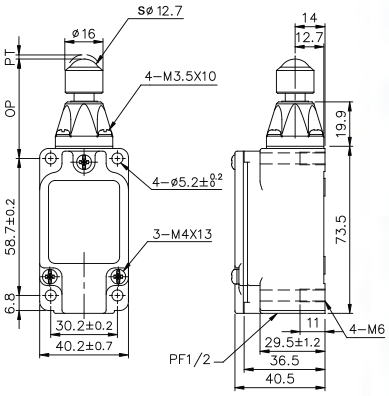
TZ-5106(WLNJ) 1,100.-





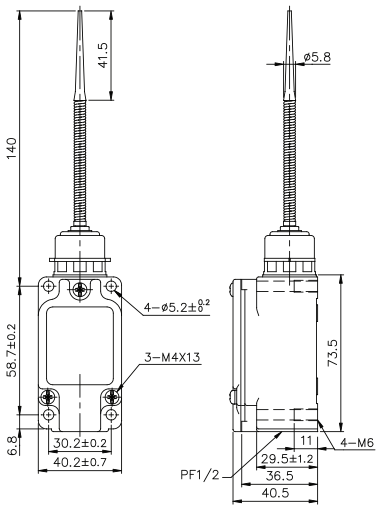
TZ-5109(WLD3) 1,265.-





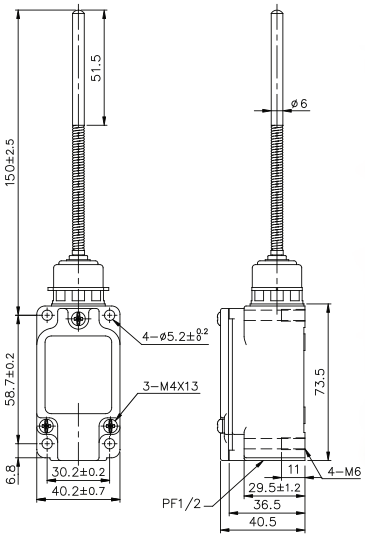
TZ-5166 1,100.-





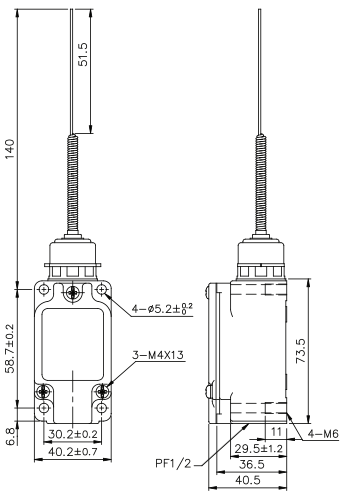
TZ-5168 1,165.-





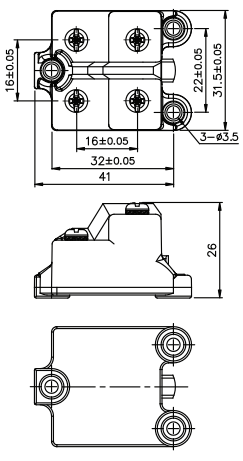
TZ-5169 1,100.-





TZ-501 390.-





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tend ENCLOSED LIMIT SWITCH
เอ็นโคลสลิมิตสวิตช์ IP65

A009142

E-99688

Long Service Life and Large Breaking Capacity

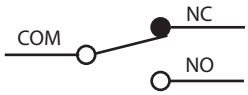
FEATURES

- Models TZ-6 incorporate Model TM Micro Switches with rugged diecast cases.
- Available with various types of built-in switches (including split contact type, maintained operation type, magnetic blowout type) and various actuators.
- **Degree of Protection : IEC IP65**

SPECIFICATIONS

- RATINGS
- CHARACTERISTICS
  THE SAME AS MICRO SWITCH SEE P (A)1

CONTACT CONFIGURATION



OPERATING CHARACTERISTICS

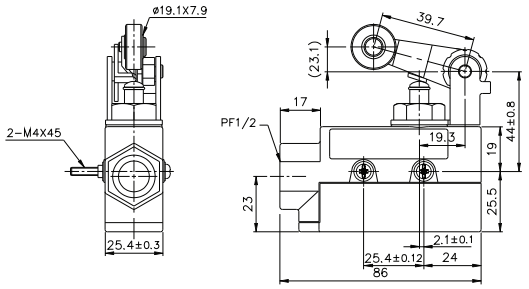
Type	TZ-6001	TZ-6002	TZ-6003	TZ-6004	TZ-6043
OF max	350 g	350 g		570 g	570 g
RF min	114 g	114 g		170 g	170 g
PT max	0.4 mm	0.5 mm		4 mm	4 mm
OT min	5.5 mm	3.6 mm		6 mm	6 mm
MD max	0.05 mm	0.05 mm		0.4 mm	0.4 mm
OP	38.2 ±0.8 mm	49.7 ±1 mm			

Type	TZ-6101	TZ-6102	TZ-6103	TZ-6104	TZ-6143
OF max	800 g	500 g		640 g	640 g
RF min	240 g	100 g		230 g	230 g
PT max	2 mm	1 mm		5 mm	5 mm
OT min	5 mm	3.5 mm		6 mm	6 mm
MD max	0.1 mm	0.12 mm		0.4 mm	0.4 mm
OP	45.8 ± 0.8 mm	49.7 ± 0.8 mm			

DIMENSIONS

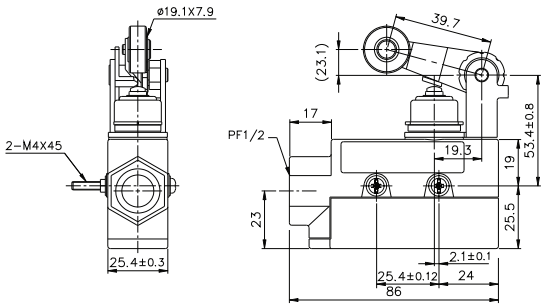
TZ-6004 (ZE-QA2-2) — 810.-





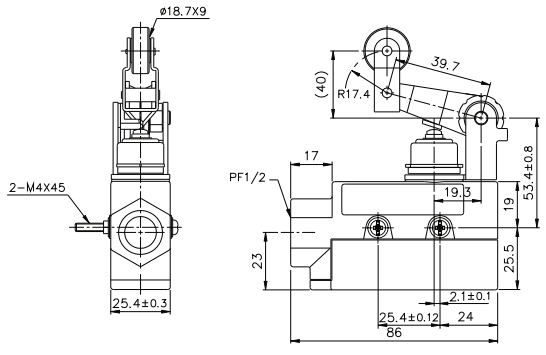
TZ-6104 (ZE-NA2-2) — 890.-





TZ-6143 (ZE-NA2-2) — 1,080.-



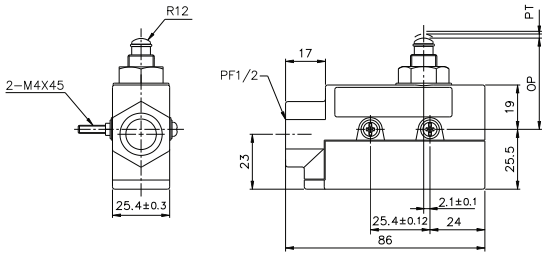


tend ENCLOSED LIMIT SWITCH
เอ็นโคลสลิมิตสวิตช์ IP65

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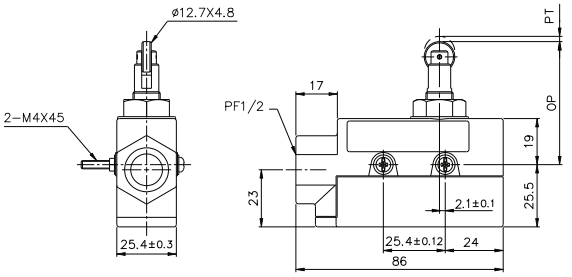
TZ-6001 (ZE-Q-2) **685.-**





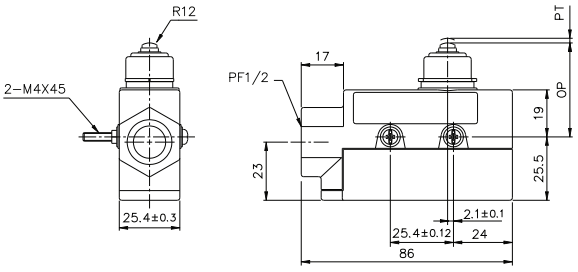
TZ-6002 (ZE-QA22-2) **760.-**





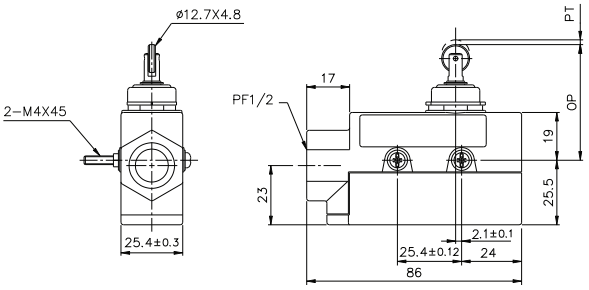
TZ-6101 (ZE-N-2) **750.-**





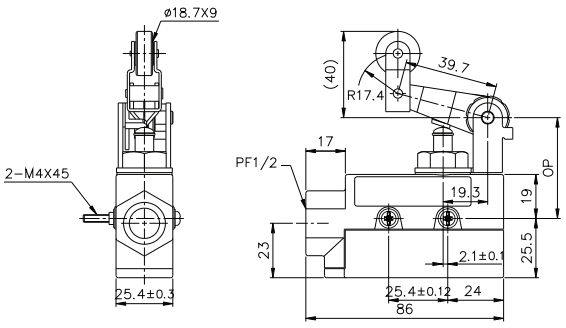
TZ-6102 (ZE-NA22-2) **1,025.-**





TZ-6043 (ZE-QA77-2) **1,045.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend LIMIT SWITCH
ลิมิตสวิตช์

A009142

FEATURES

- High precision and long life (10,000,000 mechanical operations)
- Sealed with gasket diaphragm to provide high sealing property without use of any adhesive or pin.

SPECIFICATIONS RATINGS

Rated voltage (V)	Non-inductive load(A)				Inductive load(A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 V AC	10		3	1.5	10		5	2.5
250 V AC	10		2.5	1.25	10		3	1.5
480 V AC	3		1.5	0.75	2.5		1.5	0.75
8 V AC	10		3	1.5	6		6	5
14 V DC	10		3	1.5	6		6	5
30 V DC	8		3	1.5	6		5	2.5
125 V DC	0.5		0.4		0.05		0.05	
250 V DC	0.25		0.2		0.03		0.03	

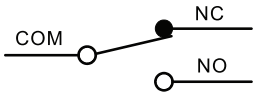
NOTES : 1. Inductive load : power factor = 0.4;
time constant = 7 msec.
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steadystate current.

CHARACTERISTICS

10A 250V AC

Operating speed	0.01 mm to 50 cm/sec (at pin plunger)
Operating frequency	120 operations/min.
Contact resistance	25 mΩ max. (initial)
Insulation resistance	100 MΩ max. (at 500 V DC)
Dielectric strength	1,000 V AC, 50/60 Hz for 1 minute between noncontinuous terminals 2,000 V AC, 50/60 Hz for 1 minute between current carrying and non-current carrying parts and between each terminal and ground
Vibration	Mechanical durability : 10 to 55 Hz 1.5 mm double amplitude
Shock	Mechanical durability : 1,000 m/sec² (approx: 100 G's) Malfunction durability : 300 m/sec² (approx. 30 G's)
Ambient ermperature	Operating : -10° to +80°C
Humidity	95% RH max (at +20° to +35°C)
Service life	Mechanically : 10,000,000 operations min (at rated OT Value) Electrically : 500,000 operations min.
Weight	Approx. 60 g
Degree of protection	IEC : IP65

CONTACT CONFIGURATION



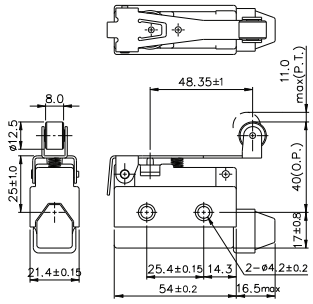
OPERATING CHARACTERISTICS

Type	TZ-7100	TZ-7110	TZ-7310	TZ-7311	TZ-7312	TZ-7120	TZ-7140	TZ-7121	TZ-7141	TZ-7124	TZ-7144	TZ-7166
OF max	600 g	600 g	600 g	600 g	600 g	150 g	220 g	180 g	240 g	200 g	280 g	120 g
RF min	100 g	100 g	100 g	100 g	100 g	40 g	60 g	50 g	80 g	60 g	100 g	
PT max	2.0 mm	2.0 mm	2.0 mm	2.0 mm	2.0 mm	13.5 mm	8.5 mm	11.0 mm	6.5 mm	11.0 mm	6.5 mm	25 mm
OT min	0.8 mm	5.0 mm	6.0 mm	6.0 mm	6.0 mm	4.0 mm	2.5 mm	3.0 mm	2.0 mm	3.0 mm	2.0 mm	11 mm
MD max	0.8 mm	0.8 mm	0.8 mm	0.8 mm	0.8 mm	3.2 mm	2.0 mm	2.4 mm	1.5 mm	2.4 mm	1.5 mm	
OP	30.8±0.8mm	44±1.2mm	21.8 ±1.2 mm	33.3 ±1.2 mm		25 ±1 mm	25 ±1 mm	40 ±1 mm	40 ±1 mm	50 ±1.2 mm	50 ±1.2 mm	
FP max						35 mm	32 mm		46 mm		56 mm	

DIMENSIONS

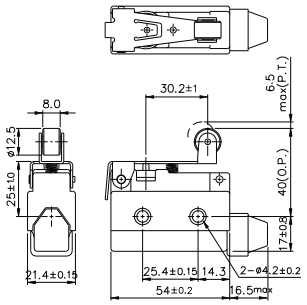
TZ-7121 (D4MC-2000) — 350.-





TZ-7141 (D4MC-2020) — 350.-



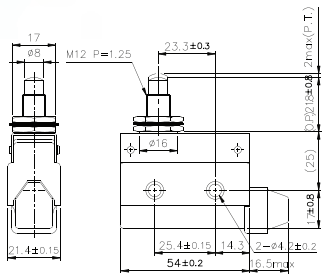


tend LIMIT SWITCH
ลิมิตสวิตช์

A009142

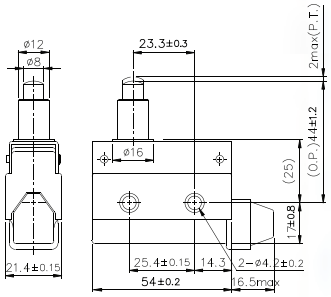
TZ-7310(D4MC)-5000 **430.-**





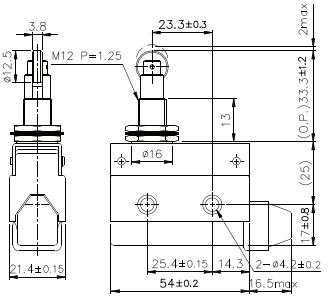
TZ-7110 **415.-**





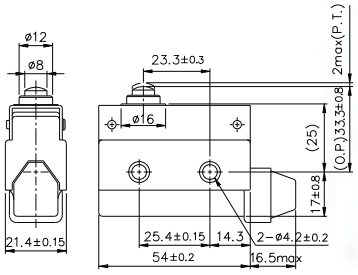
TZ-7311(D4MC)-5020 **425.-**





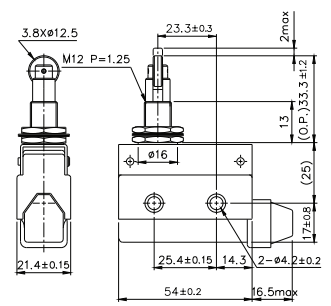
TZ-7100 **405.-**





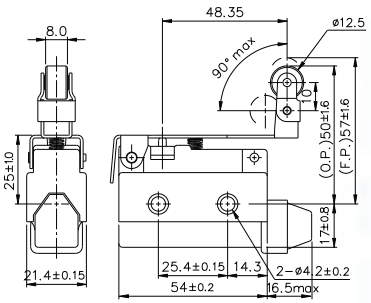
TZ-7312(D4MC)-5040 **425.-**





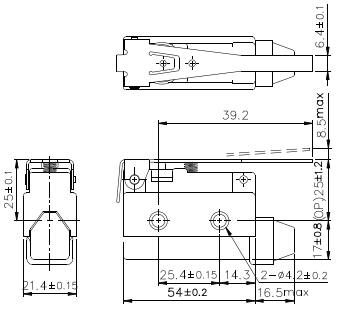
TZ-7124 **395.-**





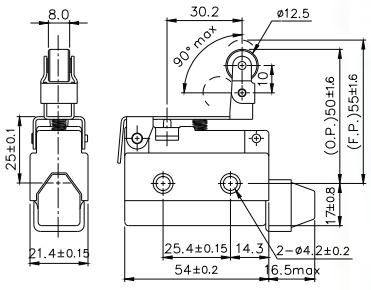
TZ-7120(D4MC)-1000 **325.-**





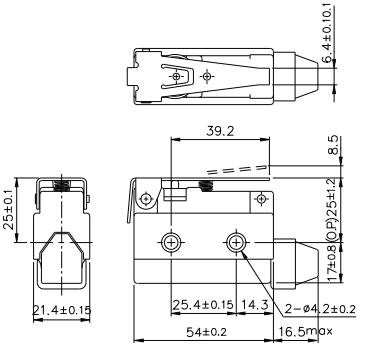
TZ-7144(D4MC)-3030 **390.-**





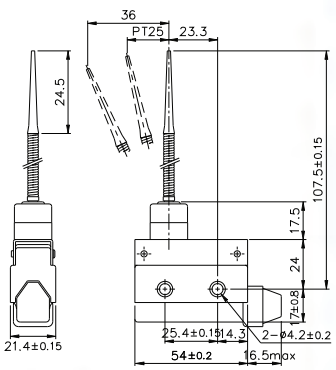
TZ-7140(D4MC)-1020 **325.-**





TZ-7166(D4MC)-5000 **520.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

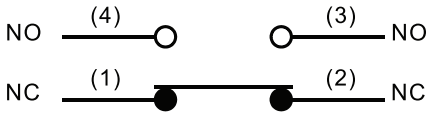
tend LIMIT SWITCH
ลิมิตสวิตช์ IP65

A009142

FEATURES

- Built-in basic switch with double spring mechanism
- Long life (10,000,000 mechanical operations)
- Highly rigid construction (Head and cover snugly fit in box)
- Dustproof and drip-proof construction
- Smooth operation with greater OT
- Easy-to-wire conduit opening design

CONTACT CONFIGURATION



SPECIFICATIONS RATINGS

Rated voltage (V)	Non-inductive load(A)				Inductive load(A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 V AC	5	5	1.5	0.7	3	3	2	1
250 V AC	5	5	1	0.5	3	3	1.5	0.8
8 V AC	5	5	3	3	5	4	3	3
14 V DC	5	5	3	3	4	4	3	3
30 V DC	5	5	3	3	4	4	3	3
125 V DC	0.4	0.4						
250 V DC	0.2	0.2						
Inrush current	NC: 24A max. NO: 12A max.							

NOTES : 1. Inductive load has a power factor of 0.4 min. (AC) and a time constant of 7 msec. Max. (DC)
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steady-state current.

CHARACTERISTICS

Operating speed	0.5 mm to 50 cm/sec
Operating frequency	Mechanically: 120 operations/min Electrically: 30 operations/min
Contact resistance	15 mΩ max. (initial)
Insulation resistance	100 MΩ min. (at 500 V DC)
Dielectric strength	1,000 V AC, 50/60 Hz for 1 minute between noncontinuous terminals 1,500 V AC, 50/60 Hz for 1 minute between current carrying and non-current carrying parts and between each terminal and ground
Vibration	10 to 55 Hz 1.5 mm double amplitude
Shock	Mechanically durability: 1,000 m/S² (approx. 100G'S) malfuncation: 500 m/S² (approx. 50G'S)
Ambient ermperature	Operating : -5 to + 65°C
Humidity	95% RH max
Service life	Mechanically : 10,000,000 operations min. Electrically : 500,000 operations min.
Weight	Approx. 130 g to 190 g
Degree of protection	IEC : IP65

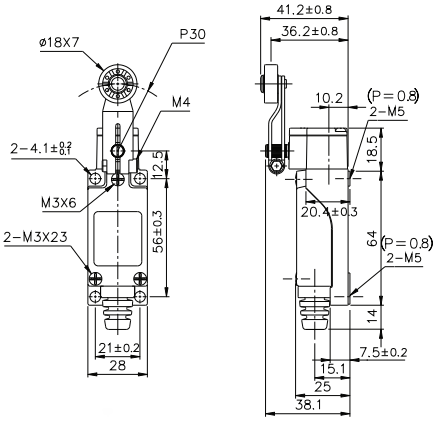
OPERATING CHARACTERISTICS

Type / Operating characteristics	TZ-8104	TZ-8108	TZ-8107	TZ-8111	TZ-8112 TZ-8122	TZ-8166, TZ-8167 TZ-8168, TZ-8169
OF max	750 g	750 g	750 g	900 g	900 g	150 g
RF min	100 g	100 g	100 g	150 g	150 g	-
PT max	2.0°	2.0°	2.0°	1.5 mm	1.5 mm	30 mm
OT min	50°	50°	50°	4 mm	4 mm	-
MD max	12°	12°	12°	1 mm	1 mm	-
OP	-	-	-	26 ±0.8 mm	37 ±0.8 mm	-

DIMENSIONS (Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.)

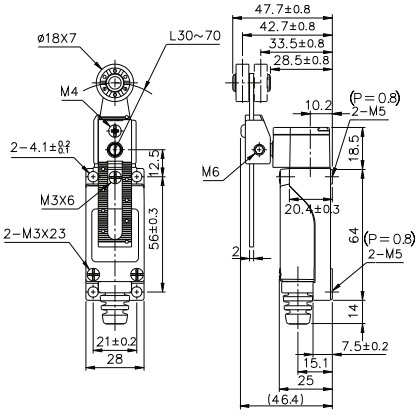
TZ-8104(HL-5000) **790.-**





TZ-8108(HL-5030) **865.-**





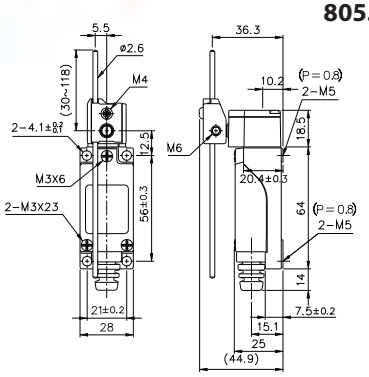
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend LIMIT SWITCH
ลิมิตสวิตช์ IP65

A009142

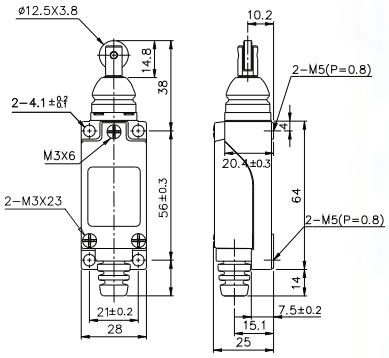
TZ-8107 (HL-5050) 805.-





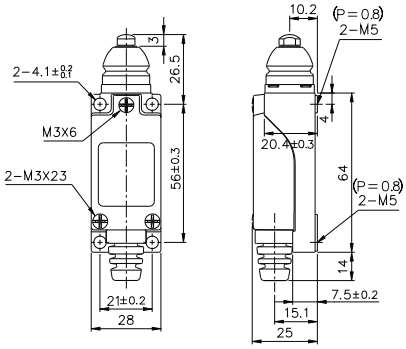
TZ-8112 (HL-5200) 710.-





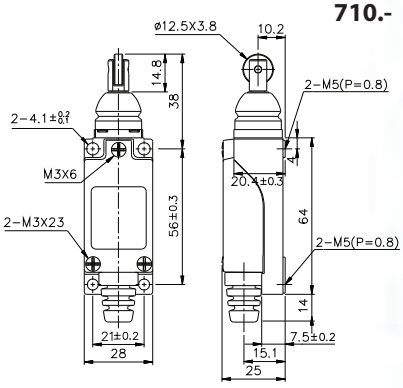
TZ-8111 (HL-5100) 700.-





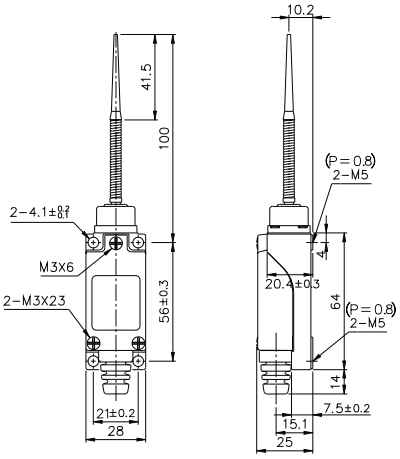
TZ-8122 710.-





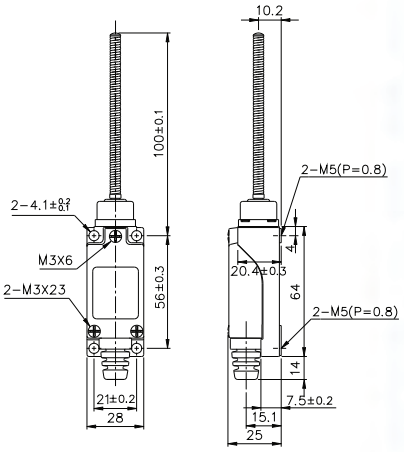
TZ-8166 (HL-5300) 790.-





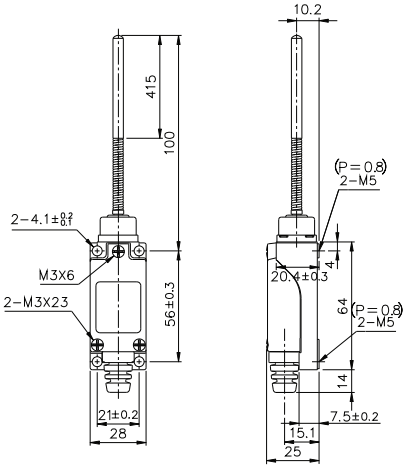
TZ-8167 790.-





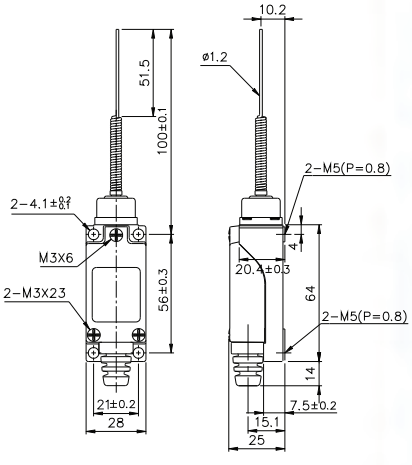
TZ-8168 805.-





TZ-8169 790.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend LIMIT SWITCH
ลิมิตสวิตช์ IP65

A009142

Economical, Miniature Limit Switch
Boasting Rigid Construction

TZ-92 Series are DIN EN0047

FEATURES

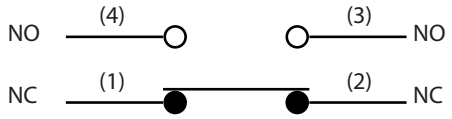
- Built-in basic switch with double spring mechanism
- Long life (10,000,000 mechanical operations)
- Material : Glass reinforced plastic.
- Dust proof and drip-proof construction
- Smooth operation with greater OT
- Easy-to-wire conduit opening design

SPECIFICATIONS RATINGS

Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125 V AC	5	5	1.5	0.7	3	3	2	1
250 V AC	5	5	1	0.5	3	3	1.5	0.8
8 V DC	5	5	3	3	5	4	3	3
14 V DC	5	5	3	3	4	4	3	3
30 V DC	5	5	3	3	4	4	3	3
125 V DC	0.4	0.4						
250 V DC	0.2	0.2						
Inrush current	NC: 24A max. NO: 12A max							

NOTES : 1. Inductive load has a power factor of 0.4 min. (AC) and a time constant of 7 msec. Max. (DC)
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steady-state current.

CONTACT CONFIGURATION



CHARACTERISTICS

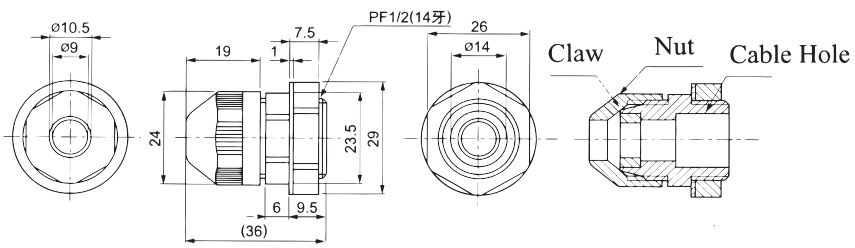
Operating speed	5 mm to 50 cm/s
Operating frequency	120 operations/min.
Contact resistance	25 mΩ max. (initial)
Insulation resistance	100 MΩ max. (at 500 V DC)
Dielectric strength	1,000 V AC, 50/60 Hz for 1 minute between non-continuous terminals 1,500 V AC, 50/60 Hz for 1 minute between current carrying and non-current carrying parts and between each terminal and ground
Vibration	10 to 55 Hz 1.5 mm double amplitude
Shock	Approx :300 m/s² (approx. 30G's)
Ambient ermperature	Operating : -5° to +60°C
Humidity	95% RH max
Service life	Mechanically : 10,000,000 operations min Electrically : 500,000 operations min.
Weight	Approx. 130 to 190 g
Degree of protection	IEC : IP65

OPERATING CHARACTERISTICS

Type	TZ-9104	TZ-9108	TZ-9107	TZ-9111	TZ-9112 TZ-9122	TZ-9124	TZ-9166, TZ-9167 TZ-9169
	TZ-9204	TZ-9208	TZ-9207	TZ-9211	TZ-9212 TZ-9222	TZ-9244	TZ-9266, TZ-9267 TZ-9269
OF max	500 g	450 g	450 g	700 g	700 g	450 g	150 g
RF min	50 g	40 g	40 g	150 g	150 g	80 g	-
PT max	18 ~ 28	18 ~ 28	2 mm	2 mm	2 mm	4 mm	30 mm
OT min	30	30	30	4 mm	4 mm	4 mm	-
MD max	14	14	14	0.8 mm	0.8 mm	1.6 mm	-
OP	-	-	-	18 ± 0.5 mm	28.2 ± 0.8 mm	37 ± 0.8 mm	-

HPF-12 (TG-16) SERIES
CABLE GLAND Diameter of Cable Ø6 ~ 10 mm **90.-**





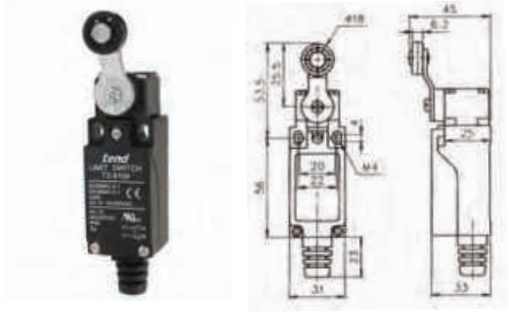
tend LIMIT SWITCH

ลิมิตสวิตช์ IP65

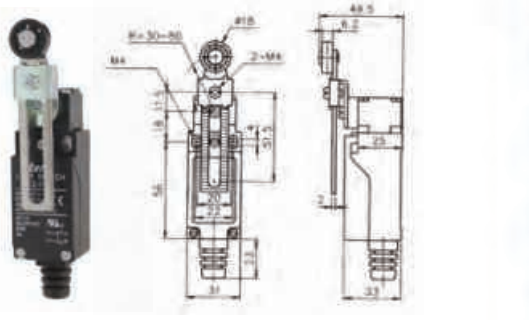
TZ-9

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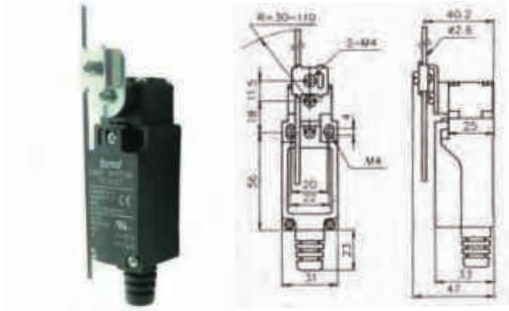
TZ-9104 625.-



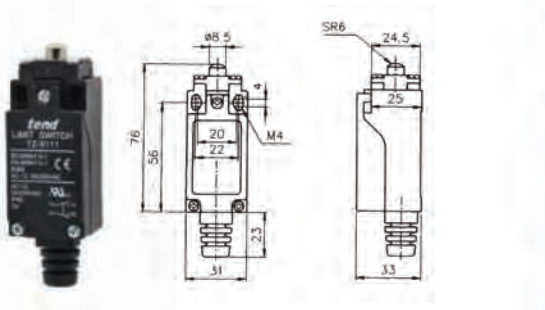
TZ-9108 700.-



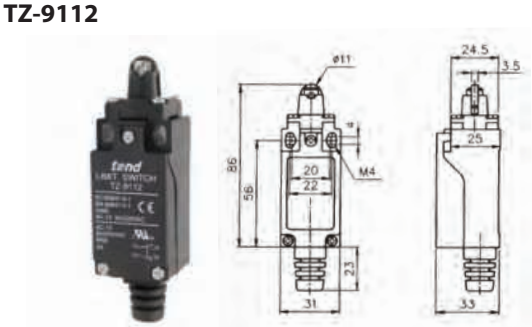
TZ-9107 660.-



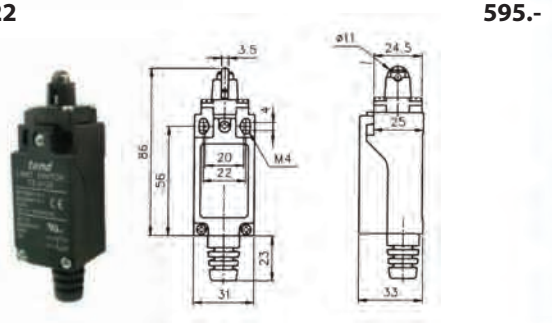
TZ-9111 550.-



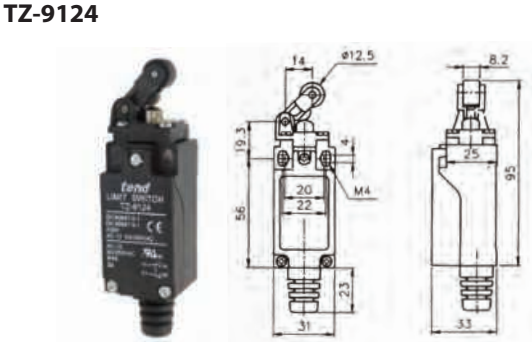
TZ-9112 595.-



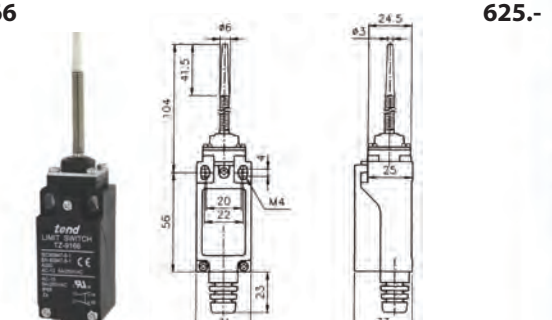
TZ-9122 595.-



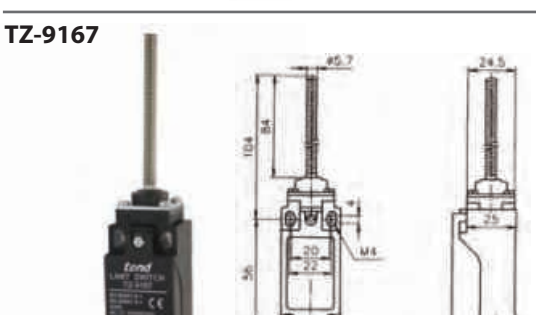
TZ-9124 660.-



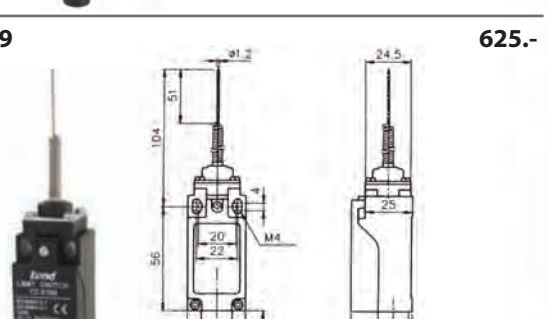
TZ-9166 625.-



TZ-9167 625.-



TZ-9169 625.-



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

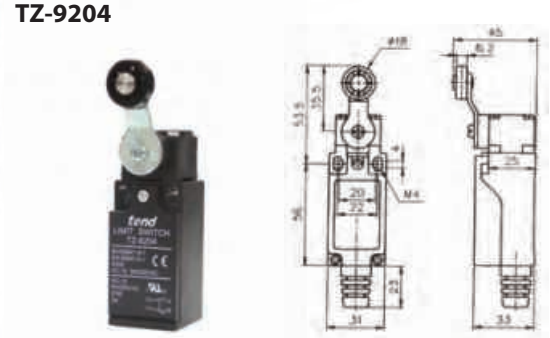
tend LIMIT SWITCH

ลิมิตสวิตช์ IP65

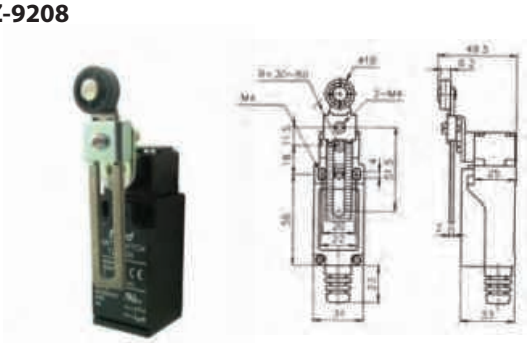
TZ-9

A009142

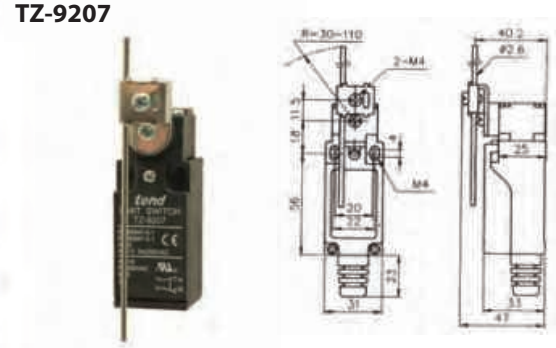
TZ-9204 625.-



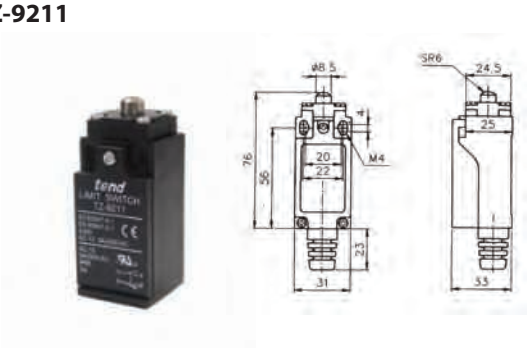
TZ-9208 700.-



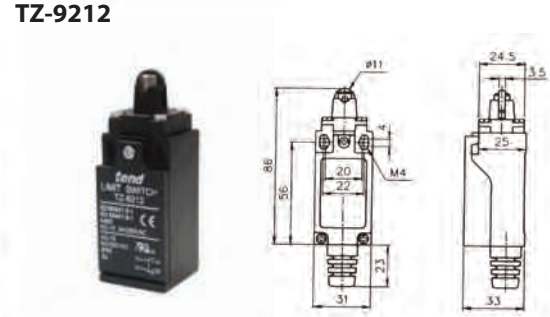
TZ-9207 660.-



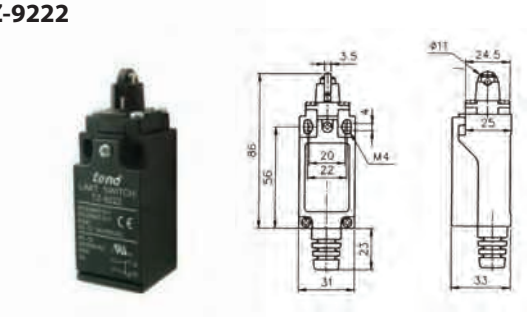
TZ-9211 620.-



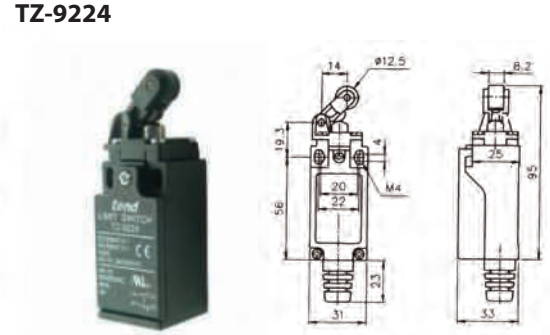
TZ-9212 595.-



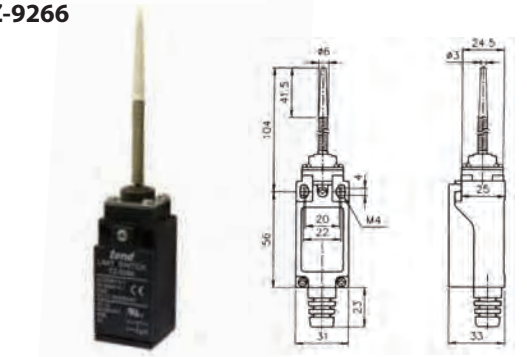
TZ-9222 595.-



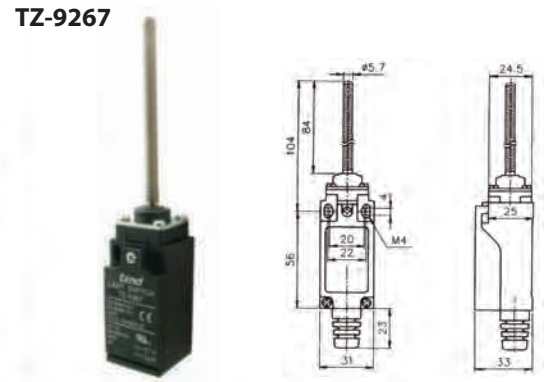
TZ-9224 660.-



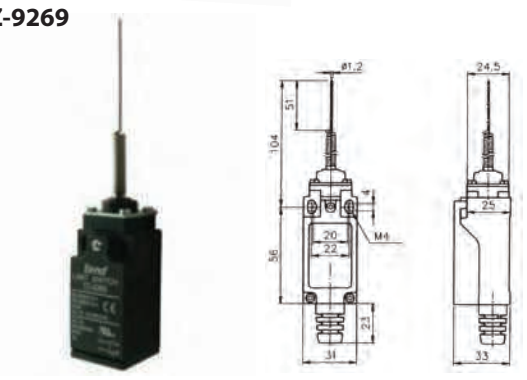
TZ-9266 625.-



TZ-9267 625.-



TZ-9269 625.-



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

LIMIT SWITCH (FOR ELEVATOR)

ลิมิตสวิตช์สำหรับลิฟต์

TSW

MODEL DESIGNATIONS

TSW - A
1 2

Designation	Signal	Description
1.Type	TSW	Elevator Switch
	TSW2	Decelerate Switch
2.Contact blocks	A	1a
	B	1b

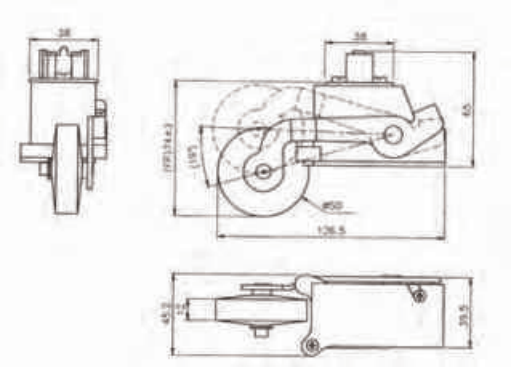
CHARACTERISTICS

Characteristics \ Type	TSW	TSW2
Contact resistance	50 mΩ max.	
Insulation resistance	100 MΩ min. (at 500 V DC)	
Dielectric strength	2000 V AC, 50/60 Hz 1 minute	
Ambient temperature	-10°C ~ 80°C	
Ambient humidity	45% ~ 80% RH	
Operation force	1 Kgf max	300 gr. max
Weight	Approx. 250 gr	Approx. 350 gr
Pretravel	8 mm max	45° ± 5°
Overtravel	25 mm max	23° ± 5°
Free position	74 ± 3 mm.	

DIMENSIONS

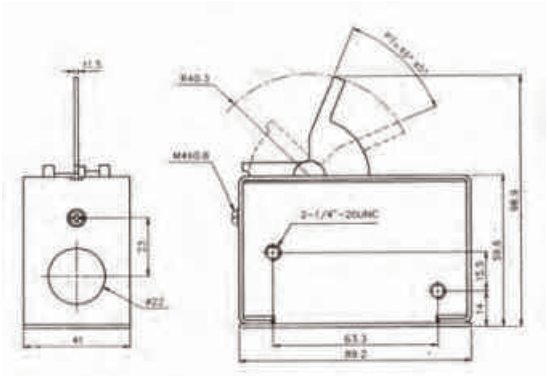
TSW-A (KS-E002A) **1,100.-**





TSW2-3 (KS-E002B) **1,100.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

SAFETY KEY INTERLOCK SWITCH
เซฟตี้คีย์อินเตอร์ล็อคสวิตช์

A009142

MODEL DESIGNATIONS

TZ93 B PG 01
① ② ③ ④

Designation	Signal	Description
1.Type	TZ-93	Safety Switch
2.Type of contact blocks fitted	B	2b (2NC)
	C	1a1b (No-Nc)
3.Conduit entries	PG	PG13.5 x P1.5
	PT	PT1/2 x 14UNC
4.Actuating keys	None	None
	01	Horizontal
	02	Vertical
	03	Adjustable

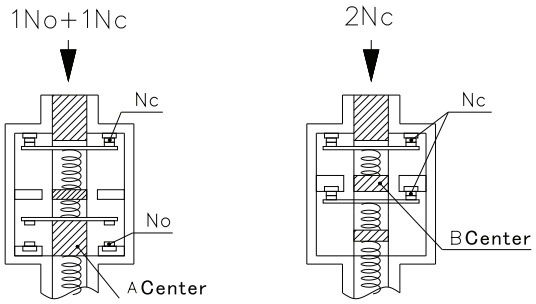
CHARACTERISTICS

Rating	3A 240 V AC (A300)
Operating speed	0.1 mm ~ 0.5 m/s
Operating frequency	30 times/ minute
Contact resistance	25 mΩ max. (initial)
Insulation resistance	100 MΩ min. (at 500 V DC)
Rated insulation voltage (ui)	400 V
Dielectric strength	AC2500 V/Umip 4 KV
Vibration	10 ~ 50 Hz 0.65 mm double amplitude
Shock	Mechanically Approx : 1,000 m/s² (Approx: 100 G's) Electrically: Approx : 300 m/s ² (approx. 30G's)
Ambient temperature	-30° ~ +70°C
Ambient humidity	Below 95% RH
Service life	Mechanically : 10,000,000 operations/ min Electrically : 150,000 operations/min.
Degree of protection	IP65 (EN60947-5-1)
Shor-circuit protective device	10A Fuse
Weight	Approx. 76 g

SPECIFICATIONS RATINGS

Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
	Resistive load		Lamp load		Inductive load		Motor load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	10		3	1.5	10		5	2.5
250VAC	10		2	1	10		3	1.5
400VAC	10		1.5	0.8	3		1.5	0.8
8VDC	10		6	3	10		6	
14VDC	10		6	3	10		6	
30VDC	6		4	3	6		4	
125VDC	0.8		0.2	0.2	0.8		0.2	
250VDC	0.4		0.1	0.1	0.4		0.1	

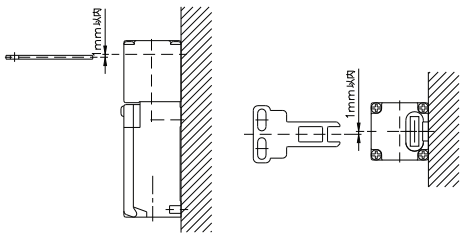
REQUIRED TO HAVE POSITIVE MACHINE



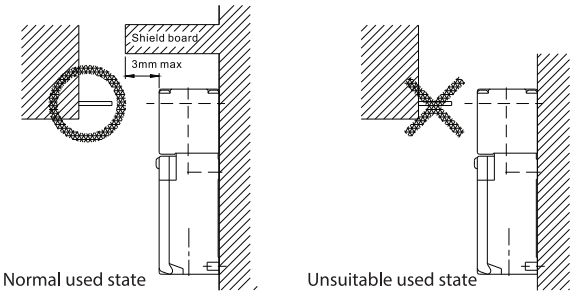
When the contact block get fire, press on the middle of the key structure, the Nc strict leaving structure can push the contact block a way cut off the movement.

USE ATTENTION AFFAIR

To prevent the wear and the space should be within 1 mm between the key and middle of the insert hole



When in use, there should put a plate on the top to prevent the key overinsert. To prevent nonmovement, the space between the plate and the switch should be under 3 mm.



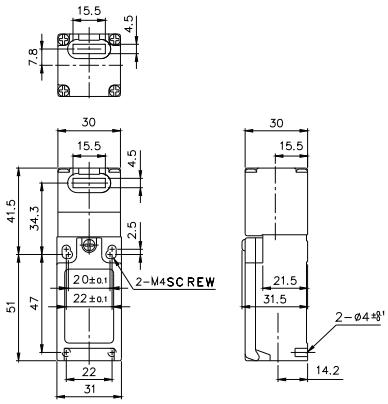
tend SAFETY KEY INTERLOCK SWITCH
เซฟตี้คีย์อินเตอร์ล็อคสวิตช์

A009142

DIMENSIONS (ใช้คอนโทรลปิด-เปิดไฟฝาตู้คอนโทรล)

TZ-93BPG
TZ-93BPT
TZ-93CPG
TZ-93CPT





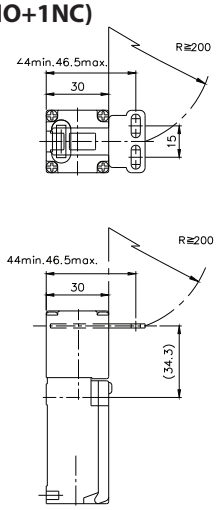
OPERATING CHARACTERISTICS

Key plug in force	max.	14.71N (1,500 gf)
Key pull out force	max.	29.42N (3,000 gf)
Pretravel		6 ± 3 mm
Total travel		(28 mm)
Force required to have positive	min.	58.84N (6,000 gf)
Positive opening travel	min.	10 mm

DIMENSIONS OF OPERATING

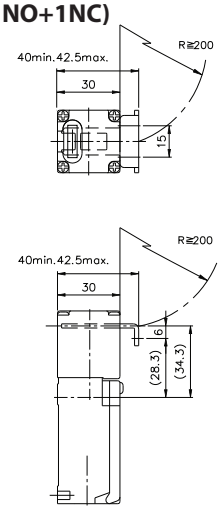
TZ-93BPG01 } 2B (2NC)
TZ-93BPT01 }
TZ-93CPG01 } 1A1B (1NO+1NC)
TZ-93CPT01 }
1,280.-





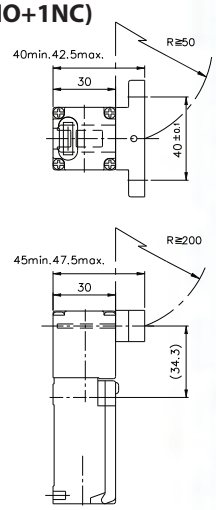
TZ-93BPG02 } 2B (2NC)
TZ-93BPT02 }
TZ-93CPG02 } 1A1B (1NO+1NC)
TZ-93CPT02 }
1,280.-





TZ-93BPG03 } 2B (2NC)
TZ-93BPT03 }
TZ-93CPG03 } 1A1B (1NO+1NC)
TZ-93CPT03 }
1,280.-

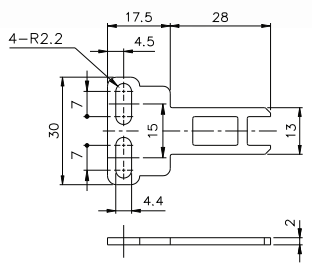




TYPE OF KEYS AND DIMENSIONS

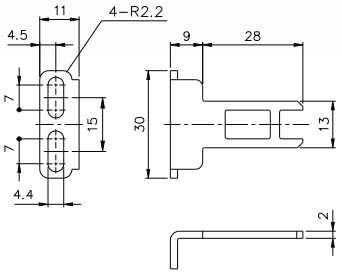
TZ93-K1 **90.-**





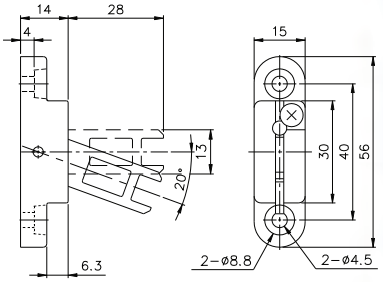
TZ93-K2 **90.-**





TZ93-K3 **160.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน ชนิดธรรมดา

CHARACTERISTICS

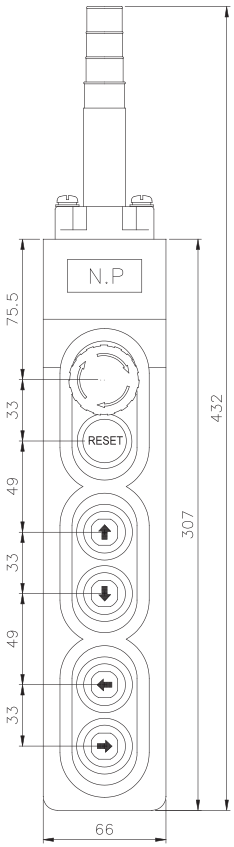
	Type	Label	Button	Button assembly		Description	Exterminal diameter of cable	Terminal	Remark	Price
Direct operation	THS-EP213	None	1	T2BKRR-2B	Emergency stop 2B (red)	10 A 250 V AC	Ø13.3 ~ Ø16.5	M3.5	Control motor directly	1,695.-
			2	T2PR-2R	Indicator (Red)	220 V AC				
			3	THS-213C	213 contact block	Single 100/110 V 0.75 Kw				
			4			Phase 200/220 V 1.5 Kw				
	THS-EI22	A	1	T2BKRR-1B	Emergency stop 1B (red)	10 A 250 V AC	Ø13.3 ~ Ø16.5	M3.5	Control motor directly	2,420.-
			2	T2IFR2G-1A	illuminated flat head push button switch 1A (green)	220 V AC				
			3	THS-2C-S	21 contact block	Single 200/220 V 2.2 Kw				
			4			Phase 400/440 V 2.2 Kw				
	THS-EI23	E	1	T2BKRR-1B	Emergency stop 1B (red)	10 A 250 VAC	Ø16.3 ~ Ø19.5	M3.5	Control motor directly	3,380.-
			2	T2IFR2G-1A	illuminated flat head push button switch 1A (green)	220 VAC				
			3 4	2*THS-2C-S	21 contact block*2	Single 200/220 V 2.2 Kw				
			5 6			Phase 400/440 V 2.2 Kw				

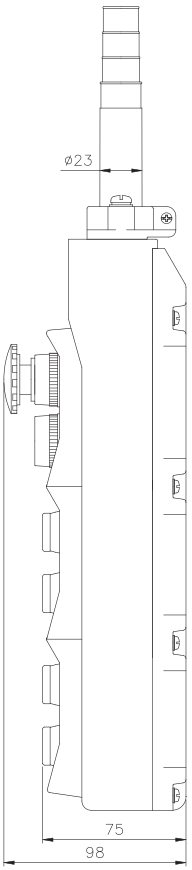
● Note : None-represent Chiness sticker (A: represents the arrow sticker E: represents English sticker)

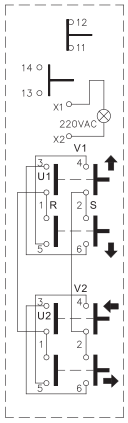
DIMENSIONS AND WIRING DRAWING



THS-EP213 THS-EI22 THS-EI23



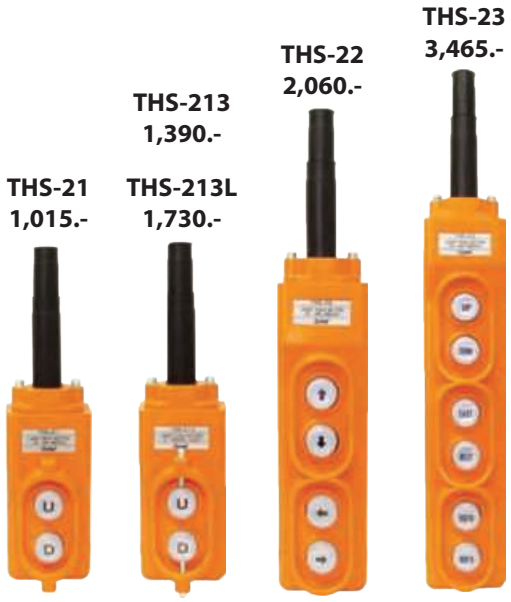




R. S. :Power
U_1andV_1: Motor(1)
U_2andV_2: Motor(2)
①And② are terminal numbers

tend HOIST PUSH BUTTON SWITCH
สวิตช์เครน ชนิดธรรมดา

DIRECT OPERATION TYPE
ชนิดต่อตรง



DIRECT OPERATION TYPE
ชนิดต่อผ่านเมกเนติคสวิตช์



The hoist push button switches are classified as follows in accordance with application.

Direct operation

1. Hoisting (One set of forward and reverse)
2. Hoisting transverse, or longitudinal (two sets of forward and reverse)
3. Hoisting, transverse, and longitudinal (three sets of forward and reverse)

In conjunction with a magnetic switch

4. Hoisting (one set of forward and reverse used in conjunction with a magnetic switch)
5. Two sets and three sets of forward and reverse are planned.

Used Direct Operation		With A Magnetic Switch	
250 V	15 A	250 V	5 A
500 V	15 A	500 V	2 A

SPECIFICATIONS

Type		Hoist operation	Maximum applicable electric motor capacity 200/220V kW (HP)	Standard			Special
				Inner diameter of the glad bushing packing (mm)	Nominal crossectional area (mm2)	Number of conductors	Other special rubber cables
Direct operation	THS-213L	Hoisting	0.75 (1) 1Ø100V With Lock Pin	18	2.0	6	2 mm2, 4-Conductor, vinyl, 12Ø 2 m2, 9-Conductor, rubber, 19Ø 2 mm2, 7-Conductor, Chloroprene, 17Ø
	THS-213		0.75 (1) 1Ø 100V	18	2.0	6	
	THS-21		2.2 (3)	16	2.0	5	
	THS-22	Hoisting and transverse (or longitudinal)	2.2 (3) x 2	18	2.0	7	
	THS-23	Hoisting transverse and longitudinal	2.2 (3) x 3	14-1, 16-1	2.0	4 and 5	
Indirect operation	THS-61	Hoisting	250 V 5A	12	2.0	3	10Ø , 11Ø, 13Ø
	THS-62	Two sets	500 V 2A	16	2.0	6	
	THS-63	Three sets	with a magnetic switch	18	2.0	7	

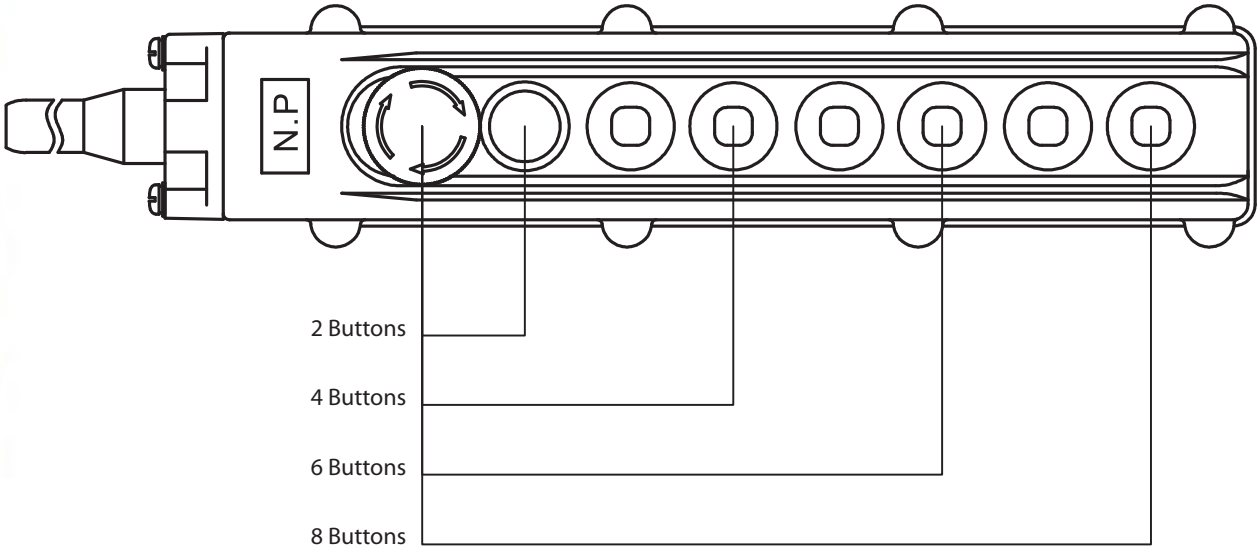
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67

MODEL DESIGNATION

THS-8	2				for 2 buttons
THS-8	2	2			for 4 buttons
THS-8	2	2	2		for 6 buttons
THS-8	EP	2	2	2	for 8 buttons

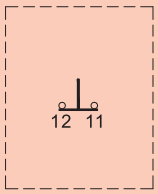
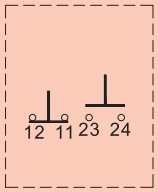
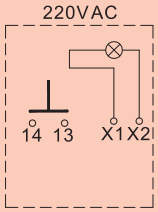
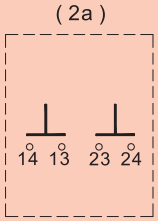
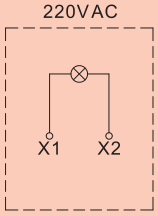
Designation	Signal	Description
Control method	82	Direct control 3Ø Single speed
	83	Indirect control Two speed
	86	Indirect control Single speed
Push button sw.	EX	Emergency stop + Water proof rubber
	EB	Emergency stop + Push button switch
	EI	Emergency stop + Illuminated Push button switch
	EK	Emergency stop + Key switch
	EP	Emergency stop + Indicator
	ES	Emergency stop + Selector switch



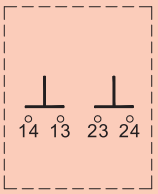
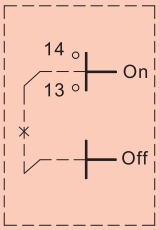
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend PUSH BUTTON AND PILOT LAMP FOR HOIST PUSH BUTTON SWITCH

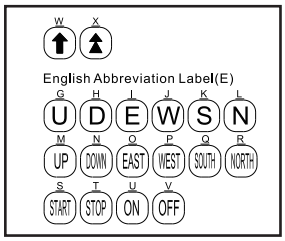
สวิตช์กด และไพล็อตแลมป์สำหรับสวิตช์เครน IP67

Type no.	Picture	Contact	Price
E	สวิตช์กดดอกเห็ด THS-BKR 	(1b) 	270.-
B	สวิตช์กด THS-BFR 	(1a1b) 	165.-
I	สวิตช์มีไพล็อตแลมป์ THS-IFR 	(1a) 220VAC 	300.-
K	สวิตช์กุญแจ THS-KSR 	(2a) 	625.-
P	ไพล็อตแลมป์ THS-PR 	220VAC 	200.-

หมายเหตุ นอกเหนือจาก Spec สำเร็จรูปใน Price list นี้ ท่านสามารถซื้ออะไหล่ประกอบเองหรือให้ทางบริษัทประกอบให้ตาม Spec ที่ต้องการ

Type no.	Picture	Contact	Price
S	สวิตช์ลูกศร THS-SSR 	(2a) 	235.-
X	ตัวอุด THS-X 	2*TP4*8 Screw Blanking Plate	50.-
PB	สวิตช์กด ON - OFF THS-PB 	(1a) 	370.-

STICKER WITH LENS 5HS8C02



ราคาแผ่นละ 22.-

- THS-81-B-BOX FOR 2 BUTTON **375.-**
  บ๊อกสวิตช์เครน 2 ช่อง
- THS-82-B-BOX FOR 4 BUTTON **730.-**
  บ๊อกสวิตช์เครน 4 ช่อง
- THS-83-B-BOX FOR 6 BUTTON **1,100.-**
  บ๊อกสวิตช์เครน 6 ช่อง
- THS-84-B-BOX FOR 8 BUTTON **1,475.-**
  บ๊อกสวิตช์เครน 8 ช่อง
- THS-82-C CONTACT DIRECT OPERATION SINGLE SPEED **1,475.-**
  คอนแทค 1 สปีดชนิดต่อตรง สำหรับรุ่น THS-82
- THS-83-C CONTACT INDIRECT OPERATION DOUBLE SPEED **2,575.-**
  คอนแทค 2 สปีดชนิดต่อผ่านเมกเนติคสวิตช์ สำหรับรุ่น THS-83
- THS-86-C CONTACT INDIRECT OPERATION SINGLE SPEED **370.-**
  คอนแทค 1 สปีดชนิดต่อผ่านเมกเนติคสวิตช์ สำหรับรุ่น THS-86

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67



INDIRECT OPERATION TYPE สวิตช์เครนชนิดต่อผ่านแมกเนติคสวิตช์

P/N	Description	Contact	Spec.	Remark	Price
THS-86	Indirect Operation 2 buttons	2a	5A 250V AC	Rainproof	660.-
THS-866	Indirect Operation 4 buttons	4a	5A 250V AC	Rainproof	1,155.-
THS-8666	Indirect Operation 6 buttons	6a	5A 250V AC	Rainproof	1,595.-
THS-86666	Indirect Operation 8 buttons	8a	5A 250V AC	Rainproof	3,115.-
THS-8PB6	Indirect Operation 2 buttons with P.B.SW. on-0ff	2a	5A 250V AC	Rainproof	1,620.-
THS-8PB66	Indirect Operation 4 buttons with P.B.SW. on-0ff	4a	5A 250V AC	Rainproof	2,400.-
THS-8PB666	Indirect Operation 6 buttons with P.B.SW. on-0ff	6a	5A 250V AC	Rainproof	3,190.-
THS-83	Indirect Operation Double Speed 2 buttons	2a	5A 250V AC	Rainproof	3,105.-
THS-833	Indirect Operation Double Speed 4 buttons	4a	5A 250V AC	Rainproof	6,075.-
THS-8333	Indirect Operation Double Speed 6 buttons	6a	5A 250V AC	Rainproof	9,200.-
THS-83333	Indirect Operation Double Speed 8 buttons	8a	5A 250V AC	Rainproof	12,060.-
THS-8PB3	Indirect Operation Double Speed 2 buttons with P.B.SW. on-off	2a	5A 250V AC	Rainproof	3,820.-
THS-8PB33	Indirect Operation Double Speed 4 buttons with P.B.SW. on-off	4a	5A 250V AC	Rainproof	6,820.-
THS-8PB333	Indirect Operation Double Speed 6 buttons with P.B.SW. on-off	6a	5A 250V AC	Rainproof	9,695.-
THS-836	Double Speed 2 buttons Single Speed 2 buttons	2a	5A 250V AC	Rainproof	3,865.-
THS-8366	Double Speed 2 buttons Single Speed 4 buttons	4a	5A 250V AC	Rainproof	4,655.-
THS-8336	Double Speed 4 buttons Single Speed 2 buttons	6a	5A 250V AC	Rainproof	6,855.-
THS-83666	Double Speed 2 buttons Single Speed 6 buttons	6a	5A 250V AC	Rainproof	5,435.-
THS-83366	Double Speed 4 buttons Single Speed 4 buttons	6a	5A 250V AC	Rainproof	7,645.-
THS-83336	Double Speed 6 buttons Single Speed 2 buttons	8a	5A 250V AC	Rainproof	9,845.-
THS-8EX3	Double Speed 2 buttons With Emergency Stop	2a	5A 250V AC	Rainproof	3,765.-
THS-8EB3	Double Speed 2 buttons With Emergency Stop, P.B. SW	2a	5A 250V AC	Rainproof	3,885.-
THS-8EI3	Double Speed 2 buttons With Emergency Stop, I. P.B SW	2a	5A 250V AC	Rainproof	3,995.-
THS-8EK3	Double Speed 2 buttons With Emergency Stop & Key Sw.	2a	5A 250V AC	Rainproof	4,345.-
THS-8EP3	Double Speed 2 buttons With Emergency Stop & Pilot Lamp	2a	5A 250V AC	Rainproof	3,920.-
THS-8ES3	Double Speed 2 buttons With Emergency Stop & Selector	2a	5A 250V AC	Rainproof	3,960.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67



INDIRECT OPERATION TYPE สวิตช์เครนชนิดต่อผ่านเมกเนติคสวิตช์

P/N	Description	Contact	Spec.	Remark	Price
THS-8EX36	D.S.2 buttons, S.S. 2 buttons / E. STOP	2a/2a	5A 250V AC	Rainproof	4,555.-
THS-8EB36	D.S.2 buttons, S.S. 2 buttons / E. STOP, P.B., SW.	2a/2a	5A 250V AC	Rainproof	4,675.-
THS-8EI36	D.S.2 buttons, S.S. 2 buttons / E. STOP, I.P.B., SW.	2a/2a	5A 250V AC	Rainproof	4,810.-
THS-8EK36	D.S.2 buttons, S.S. 2 buttons / E. STOP, Key., SW.	2a/2a	5A 250V AC	Rainproof	5,130.-
THS-8EP36	D.S.2 buttons, S.S. 2 buttons / E. STOP, Pilot Lamp	2a/2a	5A 250V AC	Rainproof	4,710.-
THS-8ES36	D.S.2 buttons, S.S. 2 buttons / E. STOP, Selector	2a/2a	5A 250V AC	Rainproof	4,745.-
THS-8EX33	D.S.4 buttons, B1 / E. STOP	4a	5A 250V AC	Rainproof	6,765.-
THS-8EB33	D.S.4 buttons / E. STOP, P.B., SW.	4a	5A 250V AC	Rainproof	6,875.-
THS-8EI33	D.S.4 buttons / E. STOP, I.P.B., SW.	4a	5A 250V AC	Rainproof	7,010.-
THS-8EK33	D.S.4 buttons / E. STOP, Key., SW.	4a	5A 250V AC	Rainproof	7,340.-
THS-8EP33	D.S.4 buttons / E. STOP, Pilot Lamp	4a	5A 250V AC	Rainproof	6,910.-
THS-8ES33	D.S.4 buttons / E. STOP, Selector	4a	5A 250V AC	Rainproof	6,835.-
THS-8EX336	D.S.4 buttons, S.S. 2 buttons / E. STOP	4a/2a	5A 250V AC	Rainproof	7,550.-
THS-8EB336	D.S.4 buttons, S.S. 2 buttons / E. STOP, P.B., SW.	4a/2a	5A 250V AC	Rainproof	7,670.-
THS-8EI336	D.S.4 buttons, S.S. 2 buttons / E. STOP, I.P.B., SW.	4a/2a	5A 250V AC	Rainproof	7,800.-
THS-8EK336	D.S.4 buttons, S.S. 2 buttons / E. STOP, Key., SW.	4a/2a	5A 250V AC	Rainproof	8,120.-
THS-8EP336	D.S.4 buttons, S.S. 2 buttons / E. STOP, Pilot Lamp	4a/2a	5A 250V AC	Rainproof	7,700.-
THS-8ES336	D.S.4 buttons, S.S. 2 buttons / E. STOP, Selector	4a/2a	5A 250V AC	Rainproof	7,735.-
THS-8EX333	THS-8EX333 D.S.6 buttons, B1 / E. STOP	6a	5A 250V AC	Rainproof	9,760.-
THS-8EB333	D.S.6 buttons / E. STOP, P.B., SW.	6a	5A 250V AC	Rainproof	9,870.-
THS-8EI333	D.S.6 buttons / E. STOP, I.P.B., SW.	6a	5A 250V AC	Rainproof	10,000.-
THS-8EK333	D.S.6 buttons / E. STOP, Key., SW.	6a	5A 250V AC	Rainproof	10,330.-
THS-8EP333	D.S.6 buttons / E. STOP, Pilot Lamp	6a	5A 250V AC	Rainproof	9,900.-
THS-8ES333	D.S.6 buttons / E. STOP, Selector	6a	5A 250V AC	Rainproof	9,935.-
THS-8EX366	D.S.2 buttons, S.S. 4 buttons / E. STOP	2a/4a	5A 250V AC	Rainproof	5,350.-
THS-8EB366	D.S.2 buttons, S.S. 4 buttons / E. STOP, P.B., SW.	2a/4a	5A 250V AC	Rainproof	5,460.-
THS-8EI366	D.S.2 buttons, S.S. 4 buttons / E. STOP, I.P.B., SW.	2a/4a	5A 250V AC	Rainproof	5,590.-
THS-8EK366	D.S.2 buttons, S.S. 4 buttons / E. STOP, Key., SW.	2a/4a	5A 250V AC	Rainproof	5,920.-
THS-8EP366	D.S.2 buttons, S.S. 4 buttons / E. STOP, Pilot Lamp	2a/4a	5A 250V AC	Rainproof	5,490.-
THS-8ES366	D.S.2 buttons, S.S. 4 buttons / E. STOP, Selector	2a/4a	5A 250V AC	Rainproof	5,525.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67



INDIRECT OPERATION TYPE สวิตช์เครนชนิดต่อผ่านเมกเนติคสวิตช์

P/N	Description	Contact	Spec.	Remark	Price
THS-8EX6	Indirect 2 buttons / E. STOP	2a	5A 250V AC	Rainproof	1,565.-
THS-8EB6	Indirect 2 buttons / E. STOP, P.B., SW.	2a	5A 250V AC	Rainproof	1,320.-
THS-8EI6	Indirect 2 buttons / E. STOP, I.P.B., SW.	2a	5A 250V AC	Rainproof	1,815.-
THS-8EK6	Indirect 2 buttons / E. STOP, Key., SW.	2a	5A 250V AC	Rainproof	2,145.-
THS-8EP6	Indirect 2 buttons / E. STOP, Pilot Lamp	2a	5A 250V AC	Rainproof	1,740.-
THS-8ES6	Indirect 2 buttons / E. STOP, Selector	2a	5A 250V AC	Rainproof	1,750.-
THS-8EX66	Indirect 4 buttons / E. STOP	4a	5A 250V AC	Rainproof	2,355.-
THS-8EB66	Indirect 4 buttons / E. STOP, P.B., SW.	4a	5A 250V AC	Rainproof	2,465.-
THS-8EI66	Indirect 4 buttons / E. STOP, I.P.B., SW.	4a	5A 250V AC	Rainproof	2,600.-
THS-8EK66	Indirect 4 buttons / E. STOP, Key., SW.	4a	5A 250V AC	Rainproof	2,930.-
THS-8EP66	Indirect 4 buttons / E. STOP, Pilot Lamp	4a	5A 250V AC	Rainproof	2,500.-
THS-8ES66	Indirect 4 buttons / E. STOP, Selector	4a	5A 250V AC	Rainproof	2,530.-
THS-8EX666	Indirect 6 buttons / E. STOP	6a	5A 250V AC	Rainproof	3,095.-
THS-8EB666	Indirect 6 buttons / E. STOP, P.B., SW.	6a	5A 250V AC	Rainproof	3,260.-
THS-8EI666	Indirect 6 buttons / E. STOP, I.P.B., SW.	6a	5A 250V AC	Rainproof	3,390.-
THS-8EK666	ndirect 6 buttons / E. STOP, Key., SW.	6a	5A 250V AC	Rainproof	3,720.-
THS-8EP666	Indirect 6 buttons / E. STOP, Pilot Lamp	6a	5A 250V AC	Rainproof	3,290.-
THS-8ES666	Indirect 6 buttons / E. STOP, Selector	6a	5A 250V AC	Rainproof	3,325.-

ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67



DIRECT OPERATION TYPE สวิตช์เครนชนิดต่อตรง

P/N	Description	Contact	Spec.	Remark	Price
THS-82	Direct Operation 2 buttons single phases	3a	15A 250V AC	Rainproof	**1,540.-**
THS-822	Direct Operation 4 buttons single phases	6a	15A 250V AC	Rainproof	**2,940.-**
THS-8222	Direct Operation 6 buttons single phases	9a	15A 250V AC	Rainproof	**4,400.-**
THS-82222	Direct Operation 8 buttons single phases	12a	15A 250V AC	Rainproof	**7,660.-**
THS-8PB2	Direct Operation 2 buttons single phases with P.B. SW. On-off	3a	15A 250V AC	Rainproof	**2,720.-**
THS-8PB22	Direct Operation 4 buttons single phases with P.B. SW. On-off	6a	15A 250V AC	Rainproof	**4,620.-**
THS-8PB222	Direct Operation 6 buttons single phases with P.B. SW. On-off	9a	15A 250V AC	Rainproof	**6,505.-**
THS-8EX2	Direct Operation 2 buttons with E. STOP single phases		15A 250V AC	Rainproof	**2,665.-**
THS-8EB2	Direct 2 buttons / E. STOP, P.B., SW. single phases		15A 250V AC	Rainproof	**2,785.-**
THS-8EI2	Direct 2 buttons / E. STOP, I.P.B., SW. single phases		15A 250V AC	Rainproof	**2,915.-**
THS-8EK2	Direct 2 buttons / E. STOP, Key., SW. single phases		15A 250V AC	Rainproof	**3,245.-**
THS-8EP2	Direct 2 buttons / E. STOP, Pilot Lamp single phases		15A 250V AC	Rainproof	**2,820.-**
THS-8ES2	Direct 2 buttons / E. STOP, Selector single phases		15A 250V AC	Rainproof	**2,860.-**
THS-8EX22	Direct Operation 4 buttons with E. STOP single phases		15A 250V AC	Rainproof	**4,565.-**
THS-8EB22	Direct 4 buttons / E. STOP, P.B., SW. single phases		15A 250V AC	Rainproof	**4,675.-**
THS-8EI22	Direct 4 buttons / E. STOP, I.P.B., SW. single phases		15A 250V AC	Rainproof	**5,085.-**
THS-8EK22	Direct 4 buttons / E. STOP, Key., SW. single phases		15A 250V AC	Rainproof	**5,140.-**
THS-8EP22	Direct 4 buttons / E. STOP, Pilot Lamp single phases		15A 250V AC	Rainproof	**4,715.-**
THS-8ES22	Direct 4 buttons / E. STOP, Selector single phases		15A 250V AC	Rainproof	**4,735.-**
THS-8EX222	Direct Operation 6 buttons with E. STOP single phases		15A 250V AC	Rainproof	**6,460.-**
THS-8EB222	Direct 6 buttons / E. STOP, P.B., SW. single phases		15A 250V AC	Rainproof	**6,570.-**
THS-8EI222	Direct 6 buttons / E. STOP, I.P.B., SW. single phases		15A 250V AC	Rainproof	**6,710.-**
THS-8EK222	Direct 6 buttons / E. STOP, Key., SW.single phases		15A 250V AC	Rainproof	**7,030.-**
THS-8EP222	Direct 6 buttons / E. STOP, Pilot Lamp single phases		15A 250V AC	Rainproof	**6,600.-**
THS-8ES222	Direct 6 buttons / E. STOP, Selector single phases		15A 250V AC	Rainproof	**6,635.-**

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67

Features

- This switch is waterproof and is made out of ABS housing.Suitable for out-door use.
- Sleek appearance, ergonomic, patented design.
- Unique mechinical interlock design, which can help prevent short-circuit.
- Two stage speeds can be set according to wiring configuration. First stage : inching, Second tage : rapid movement.
- Can be used with emergency stop, pilot lamp, push button switch, selector switch, key switch versatile. Selector switch rated current is 1th = 10A.
- Single speed and double speed can be chosen alternatively.

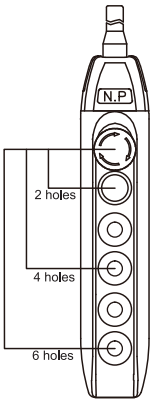
Characteristics

Type	Spec	External diameter of cable		Terminal	Remarks
THS94C	2A 500VAC 5A 250VAC	Two holes	Ø11.4~Ø12.6	M4	Control magnetic switch
		Four holes	Ø14.3~Ø15.5		
THS96C	2A 500VAC 5A 250VAC	Six holes	Ø17.2~Ø18.4		

Model Description

	One-two holes	Three-four holes	Five-six holes	Seven-eight holes	Label
THS-9	4				None
THS-9	4	4			A
THS-9	6	6	6		
THS-9	EP	6	6	6	E

Designation	Signal	Description
Control type	4	Indirect Double Speed (Mechanical Interlock)
	6	Indirect Single Speed
Push button (ref page TA103)	EX	Emergency Stop + Waterproof Rubber
	EB	Emergency Stop + Flat Push Button Switch
	EI	Emergency Stop + Illuminated Push Button Switch
	EK	Emergency Button + Key Switch
	EP	Emergency Stop + Pilot Lamp
	ES	Emergency Stop + Selector Switch

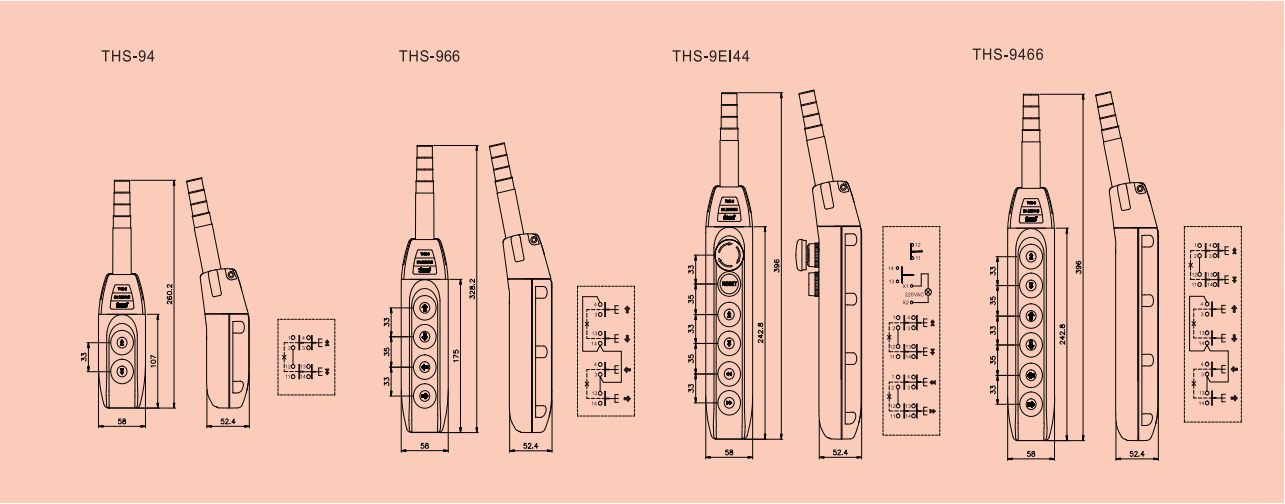


Note 1 : "None" means Chinese lable, A represents Arrow label, E represents English label see page TA121.
Note 2 : Indirect Double Speed is represented by Double Arrow labels, without additional notation of the label code A.



HOIST PUSH BUTTON SWITCH
สวิตช์เครน IP67

DIMENSIONS AND WIRING DIAGRAMS



INDIRACT OPERATION TYPE สวิตช์เครน ชนิดต่อผ่านเมกเนติคสวิตช์

P/N	Description	Contact	Spec.	Remark	Price
THS-96	Indirect operation 2 buttons	2A	5A 250 V AC	Rainproof	**715.-**
THS-966	Indirect operation 4 buttons	4A	5A 250 V AC	Rainproof	**1,320.-**
THS-9EX6	Indirect operation 2 buttons with emergency stop	2A	5A 250 V AC	Rainproof	**1,650.-**
THS-9EB6	Indirect operation 2 buttons with emergency stop & flat push button	2A	5A 250 V AC	Rainproof	**1,830.-**
THS-9EK6	Indirect operation 2 buttons with emergency stop & key button	2A	5A 250 V AC	Rainproof	**2,255.-**
THS-9EP6	Indirect operation 2 buttons with emergency stop & pilot lamp	2A	5A 250 V AC	Rainproof	**1,830.-**
THS-9ES6	Indirect operation 2 buttons with emergency stop & selector	2A	5A 250 V AC	Rainproof	**1,850.-**
THS-94	Indirect operation double speed 2 buttons	2A	5A 250 V AC	Rainproof	**3,190.-**
THS-944	Indirect operation double speed 4 buttons	4A	5A 250 V AC	Rainproof	**6,380.-**
THS-9EX4	Double speed 2 buttons with emergency	2A	5A 250 V AC	Rainproof	**3,950.-**
THS-9EP4	Double speed 2 buttons with emergency Stop & pilot lamp	2A	5A 250 V AC	Rainproof	**4,115.-**
THS-9ES4	Double speed 2 buttons with emergency stop & selector	2A	5A 250 V AC	Rainproof	**4,160.-**

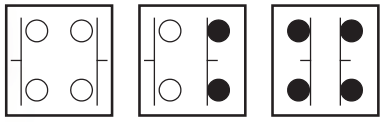
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MONOLEVER SWITCH
สวิตช์เกียร์

ISO 9002 A009142

FEATURES

1. You can smoothly and swiftly, handle the lever in four directions-upward, rightward downward, and leftward.
2. Three alternatives of movement are attainable in each direction: Go-on, auto-return, and blockade-enforcing.
3. You are free as you like to operate in four, three or two directions with the switch.
4. Rubber bushing is water-proof, oil-resistant, and dust preventive.



BR–1 **440.-** BR–2 **440.-** BR–3 **440.-**



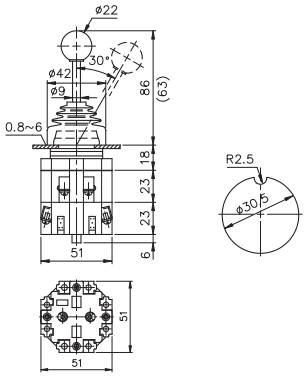
TMR-301(Code no 0101-10001000) **1,620.-**
2NO โยก 2 ทิศทาง

TMR-302(Code no 1111-10101010) **-**
4NO โยก 4 ทิศทาง

TMR-301A(Code no 0202-10001000) **1,620.-**
2NO โยก 2 ทิศทาง spring return

TMR-302A(Code no 2222-10101010) **-**
4NO โยก 4 ทิศทาง spring return





RATINGS

AC	**Rated voltage**		110 V AC	220 VAC	440 VAC
	Rated current		5 A	3 A	1 A
	Breaking current capacity		50 A	30 A	10 A
DC	**Resistance load**	Rated voltage	110 V DC	220 V DC	600 V DC
		Rated current	2.2 A	1.1 A	0.4 A
		Breaking current capacity	2.42 A	1.21 A	0.44 A
	Inductive load	Rated current	1.2 A	0.45 A	0.2 A
		Breaking current capacity	1.32 A	0.5 A	0.22 AA
Continuous passable current			10 A		
Insulation resistance			Over 100 MΩ		
Dielectric strength			2,200 V AC for duration of 1 min.		
Service life		Mechanically	500,000 operations min		
		Electrically	500,000 operations min		
Ambient temperature			-20°C + 50°C		

MODEL

THR - 30 2 1111 10,10,10,10
① ② ③ ④ ⑤

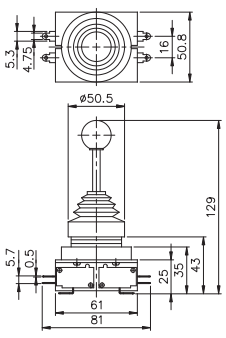
NOTE : When you place order, please kindly designate clockwise the movement way and type of contact blocks fitted.

Designation	Signal	Description
1.Type	TMR	Round Type
	TMS	Square Type
2.Mounting hole	30	Ø30 mm
3.No. of contact blocks fitted	1~4	1 ~ 4
4.Movement way	1	Go-on
	2	Auto-Return
	0	Blockade-enforcing
5.Type of contact blocks fitted	00	None
	10	1a (1NO)
	20	2a (2NO)
	01	1b (1NC)
	02	2b (2NC)
	11	1a1b (1NO-1NC)

TMRS-304(Code no 1111-11111111) **2,355.-**
4NO 4NC โยก 4 ทิศทาง

TMRS-304A(Code no 2222-11111111) **2,355.-**
4NO 4NC โยก 4 ทิศทาง spring return



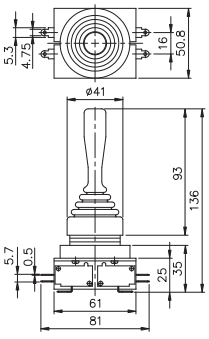


TMS-302 (Code no 0101-10001000) **2,065.-**
2NO โยก 2ทิศทาง

TMS-302A (Code no 0202-1111-10101010) **2,065.-**
2NO โยก 2 ทิศทาง Spring return

TMS-304A (Code no 2222-11111111) **2,200.-**
4NO 4NC โยก 4 ทิศทาง spring return





tend TOGLE SWITCH
แผ่นท็อกเกิ้ล

ISO 9002 CE A009142

MODEL DESIGNATIONS

TO - 11 B

1 2 3

Designation	Signal	Description
1.Type	T0	10A 250 V AC
	T0R	10A 250 V AC Spring return
	T5	15A 250 V AC
	T5R	15A 250 V AC Spring return
2.Contact	11	Single pole Single Throw ON-OFF
	12	Single pole Double Throw ON-ON
	13	Single pole Double Throw (Central OFF) ON-OFF-ON
	131	Single pole Double Throw (Central OFF Single return) ON-OFF-ON
	21	Double pole Single Throw ON-OFF
	22	Double pole Single Throw ON-OFF
	23	Double pole Double Throw (Central OFF) ON-OFF-ON
	231	Double pole Double Throw (Central OFF Single return) ON-OFF-ON
3.Terminal	A	Solder and Tab Terminal
	B	Screw Terminal

CHARACTERISTICS

Contact resistance	15 mΩ max . (initial)
Insulation resistance	100 MΩ min. (at 500 V DC)
Dielectric strength	2,000 VAC, 50/60 Hz for 1 minute
Vibration	10 to 50 Hz,1.5 mm double amplitude
Operating temperature	-25° ~ +80°C
Humidity	85% RH max
Service life	Mechanically : 500,000 operations/min Electrically : 100,000 operations/min.
Handle strength	11.5 kg for 1 minute
Terminal strength	2.5 kg for 1 minute

RATINGS

Load	Type	AC Rating	DC Rating
Resistive load	T0	10A 250V 15A 125V	0.4A 250V 0.8A 125V
	T5	15A 250V 20A 125V	0.5A 250V 0.9A 125V
Inductive load	T0	10A 250V 15A 250V	0.2A 250V 0.4A 125V
	T5	15A 250V 20A 125V	0.3A 250V 0.5A 125V 15A 30V
Lamp load	T0	300W 100V 500W 200V	-----
	T5	400W 125V 800W 250V	7A 30V
Motor load	T0	200W 125V 300W 250V	-----
	T5	400W 125V (1 Phase)	
	T0	550W 250V (3 Phase)	
	T5	750W 250V (3 Phase)	

- **Mounting hole : Ø 12m/m.**

NAME PLATE



PTO ON-OFF
(TO-P1) 12.-



PTO ON-ON
(TO-P2) 12.-



PTO ON-OFF-ON
(TO-P3) 12.-

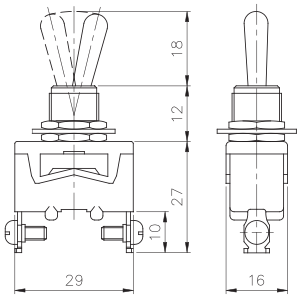
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend TOGLE SWITCH
ท็อกเกิ้ลสวิตช์

ISO 9002 CE A009142

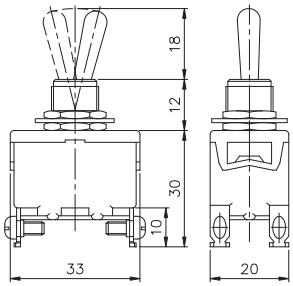
TO11B 2P10A (ON-OFF) 85.-
T511B 2P15A (ON-OFF) 125.-
TOR11B 2P10A (0N-OFF SPRING RETURN) 110.-
T5R11B 2P15A (ON-OFF SPRING RETURN) 155.-





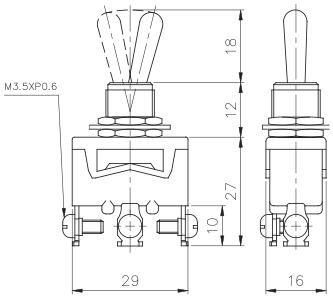
TO21B 4P10A (ON-OFF) 120.-
T521B 4P15A (ON-OFF) 165.-
TOR21B 4P10A (0N-OFF SPRING RETURN) 140.-
T5R21B 4P15A (ON-OFF SPRING RETURN) 210.-





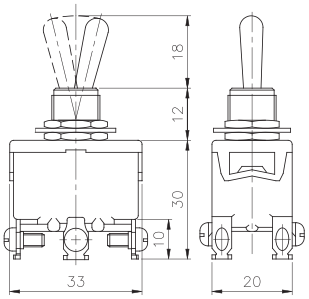
TO12B 3P10A (ON-ON) 95.-
T512B 3P15A (ON-ON) 135.-
TOR12B 3P10A (0N-ON SPRING RETURN) 130.-
T5R12B 3P15A (ON-ON SPRING RETURN) 175.-





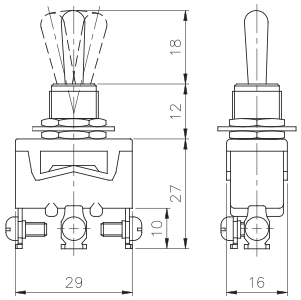
TO22B 6P10A (ON-ON) 125.-
T522B 6P15A (ON-ON) 180.-
TOR22B 6P10A (0N-ON SPRING RETURN) 160.-
T5R22B 6P15A (ON-ON SPRING RETURN) 220.-





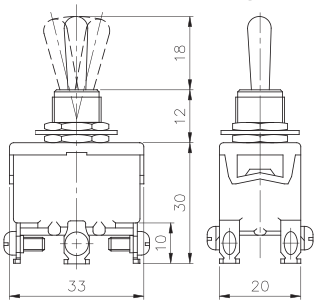
TO13B 3P10A (ON-OFF-ON) 110.-
T513B 3P15A (ON-OFF-ON) 150.-
TOR13B 3P10A (0N-OFF-ON SPRING RETURN) 150.-
T5R13B 3P15A (ON-OFF-ON SPRING RETURN) 180.-





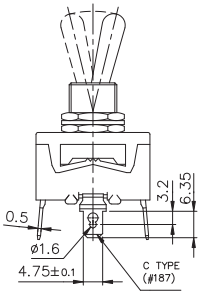
TO23B 6P10A (ON-OFF-ON) 125.-
T523B 6P15A (ON-OFF-ON) 185.-
TOR23B 6P10A (0N-OFF-ON SPRING RETURN) 160.-
T5R23B 6P15A (ON-OFF-ON SPRING RETURN) 220.-



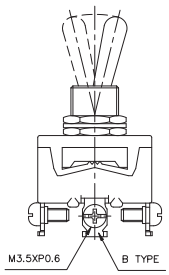


TERMINAL TYPE

Solder And Tab Type

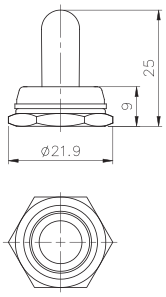


Screw Type



RAINPROOF CAP หมวดท็อกเกิ้ล กันน้ำ
TOW 75.-
TOW-E ชนิดกันยูวี 80.-





tend FOOT SWITCH
สวิตช์เท้าเหยียบ

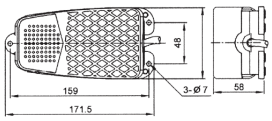
FEATURES

Designation	Type	Rating	Type of switch enclosed & contact arrangement	Cable type / Length	Contact	Actuation force	Material of rind	Price
Standard type Momentary action	TFS-101	10A 250V AC	TMV-10 micro-switch momentary	0.75 mm², 3C/ 0.5M ~ 3M	1A1B	3.5 kg	Plastics aluminium cast	**730.-**
	TFS-102	15A 250V AC	TM-1704	0.75 mm²,3C/ 1M ~ 2M	1A1B	3.5 kg		**880.-**
	TFS-103	10A 250V AC	TMV-10 micro-switch momentary 2 pcs.	0.75 mm², 6C/ 1M ~ 2M	2A2B	3.5 kg		**955.-**
	TFS-104	15A 250V AC	TM-1704*2	0.75 mm², 6C/ 1M ~ 2M	2A2B	3.5 kg		**1,475.-**
Standard type Alternate action	TFS-105	6A 250V AC	TS-105 Push switch alteranate action	0.75 mm², 2C/ 1m, 1.5m-2m	PUSH ON PUSH OFF	3.5 kg	Plastics aluminium cast	**970.-**
	TFS-105Z	6A 250V AC		0.75 mm², 3C/ 1M	PUSH ON PUSH OFF	3.5 kg		**1,210.-**
	TFS-106	6A 250V AC	Imported micro-switch	0.75 mm², 3C/ 1.5m-2m	PUSH 1A PUSH 1B	3.5 kg		**1,320.-**
Mini foot switch front end push	TFS-201	10A 250V AC	TMV-10 micro-switch momentary	0.5 mm², 3C/ 1M ~ 3M	1A1B	1 kg	Plastics	**585.-**
Front end push with matal mounting plate	TFS-202	10A 250V AC	TMV-10 micro-switch momentary	Accessory : Cable gland (No cable)	1A1B	1 kg	Plastics	**620.-**
Mini foot switch	TFS-203	10A 250V AC	TMV-10 micro-switch momentary	0.5 mm², 3C/1M ~ 3M	1A1B	1 kg	Plastics	**675.-**
Protective guard foot switch	TFS-302	10A 250V AC	TM-1704		1A1B	3.5 kg		**1,970.-**
	TFS-302R	15A 250V AC	ชนิดกันน้ำ			3.5 kg		**2,280.-**
	TFS-304	15A 250V AC	TM-1704*2		2A2B	3.5 kg		**2,720.-**
	TFS-304R	15A 250V AC	ชนิดกันน้ำ	Accessory : Cable gland (No cable)		3.5 kg	Plastics aluminium cast	**3,080.-**
	TFS-305	15A 250V AC	TS-105 Push button switch alternate action		Push On Push Off	3.5 kg		**2,050.-**
	TFS-305R	6A 250V AC	ชนิดกันน้ำ			3.5 kg		**2,345.-**
	TFS-306	6A 250V AC	Imported micro-switch		Push 2A Push 2B	3.5 kg		**2,860.-**
	TFS-306R	6A 250V AC	ชนิดกันน้ำ			3.5 kg		**3,215.-**
Large type	TFS-402	15A 250V AC	TM-1704	Accessory : Cable gland (No cable)	1A1B	3.5 kg	Plastics aluminium cast	**1,870.-**
	TFS-402R	15A 250V AC	ชนิดกันน้ำ			3.5 kg		**2,170.-**
	TFS-404	15A 250V AC	TM-1704*2		2A21B	3.5 kg		**2,620.-**
	TFS-404R	15A 250V AC	ชนิดกันน้ำ			3.5 kg		**2,970.-**
	TFS-405	6A 250V AC	TS-105 Push button switch alternate action		Push On Push Off	3.5 kg		**2,400.-**
	TFS-405R	6A 250V AC	ชนิดกันน้ำ			3.5 kg		**2,740.-**
	TFS-406	6A 250V AC	Imported micro-switch		Push 2A Push 2B	3.5 kg		**2,820.-**
	TFS-406R	6A 250V AC	ชนิดกันน้ำ			3.5 kg		**3,215.-**
Full shield	TFS-502	15A 250V AC	TM-1704		1A1B	3.5 kg		**4,445.-**
	TFS-504	15A 250V AC	TM-1704*2			3.5 kg		**5,435.-**
	TFS-505					3.5 kg		**5,260.-**
	TFS-506			Accessory : Cable gland (No cable)		3.5 kg	Aluminum cast	**5,875.-**
	TFS-602	15A 250V AC	TM-1704*2		2A21B	3.5 kg		**7,560.-**
	TFS-604	15A 250V AC	TM-1704*4		4A4B	3.5 kg		**8,800.-**
	TFS-605	6A 250V AC	TS-105x2		Push On Push Off	3.5 kg		**10,725.-**
	TFS-606	6A 250V AC	Imported micro-switchx2		Push 2A Push 2B	3.5 kg		**11,155.-**

- Add "R" for waterproof. Available in TFS3 & TFS4
- Add "Z" for aluminium housing. Available in TFS1, TFS3 & TFS4
- TFS5 series has TFS-504, TFS-505, TFS-506. Inside Micro-Switch is the same as TFS3 series. • TFS-602 DURING THE DESIGNING

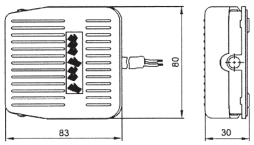
TFS-101, 102, 103, 104, 105, 106, 105Z





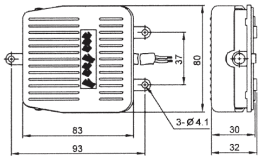
TFS-201





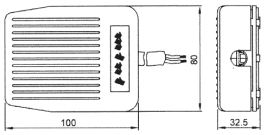
TFS-202





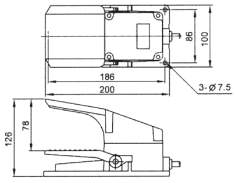
TFS-203





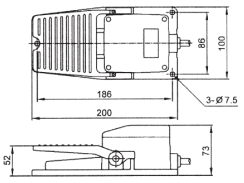
TFS-302, 304, 305, 306





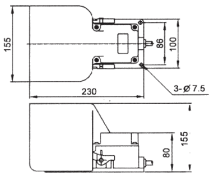
TFS-402, 404, 405, 406



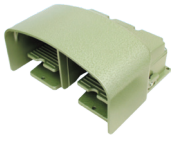


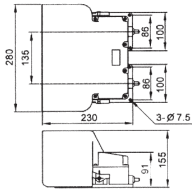
TFS-502, 504





TFS-602, 604, 605, 606





หมายเหตุ TFS-105, TFS-305, TFS-405 เป็นรุ่นกดทีติด กดทีดับ

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend POWER PUSH BUTTON SWITCH

สวิตช์กดจม

ISO 9002

MODELS AVAILABLE

Type	Rating	Mounting type	Screw terminal	Material
TBSN-310	3ø 10 A 1.5 KW	Flush mounting	M 3.5	Iron
TBSN-315	3ø 15 A 2.2 KW	Flush mounting	M 4	Iron
TBSN-330	3ø 30 A 3.7 KW	Flush mounting	M 5	Iron
TBSY-315 TBSY-330	3ø 15 A 2 KW 3ø 30 A 3.7 KW	Surface mounting	M 4	Iron
TBSS-315 TBSS-330	3ø 15 A 2 KW 3ø 30 A 3.7 KW	Surface mounting	M 4	Iron
TBSP-315	3ø 15 A 2.2 KW	Flush mounting	M 3.5	Plastic
TBSP-330	3ø 30 A 3.7 KW	Flush mounting	M 4	Plastic

TBSY-315 275.-
TBSY-330 425.-



DIMENSIONS

TBSN-310 220.-



TBSS-315 295.-
TBSS-330 435.-



TBSN-315 255.-
TBSP-315 240.-



TPB-2 160.-



TBSN-330 405.-
TBSP-330 330.-



TPB-3 315.-

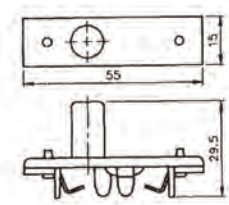


*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

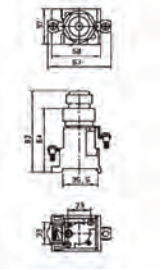
tend FUSE BOX
ฟิวส์บ๊อก

ISO 9002

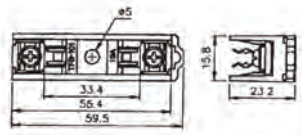
TFB-101N 110V/220V/24V **39.-**

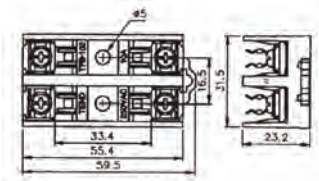
TFE-16N **130.-**

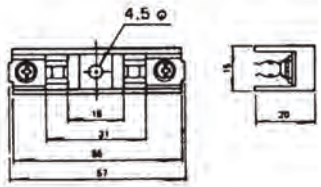
TFBR-101 **44.-**

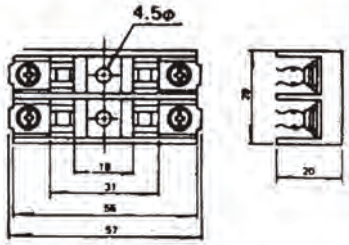
TFBR-102 **70.-**

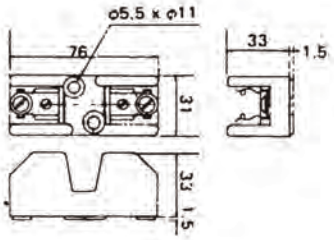
TFB-101 **44.-**

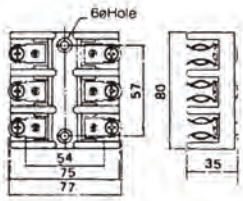
TFB-102 **70.-**

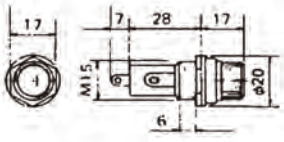
TFB-301 **130.-**

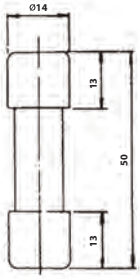
TFB-303 **365.-**

TFB-15 **12.-**

TFU-50(1A-50A) **60.-**

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

FUSE BOX(DIN RAIL MOUNTED)
ฟิวส์บ๊อก

FEATURES
1. The fuse box can be mounted in DIN rail (TBR-N) or panel directly.
2. Cabling range from 1.5mm^2- 8 mm^2.
3. Make sure power has been cut off before change fuse. The indicator lamp will turn on when power is off.

MODEL DESIGNATION

TFBR - 32 1 N

1 2 3

Designation	Signal	Description
1.Mounting hole	TFBR-32	Din rall mouted fuse box
2.No.of pole	1	1 Pole
	2	2 Poles
	3	3 Poles
3.Indicator lamp	N	110 ~ 500 V AC
	None	No lamp

SPECIFICATION

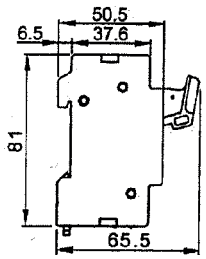
Rated voltage	Rated current	Operating temperature	Humidity	Application	Fuse size
600 V AC max	32A	-20°to + 80°C	95% RH max	Cable protection Motor protection	Ø10 x 38

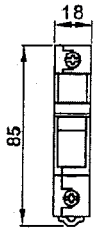
DIMENSIONS

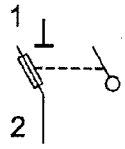
WIRING DIAGRAM

TFBR-321 1P **155.-**



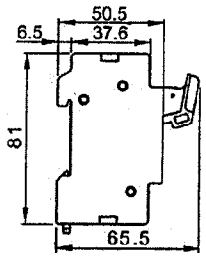


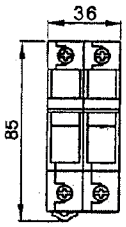


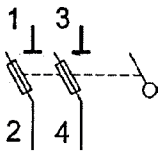


TFBR-322 2P **340.-**



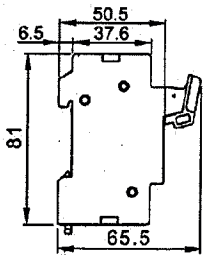


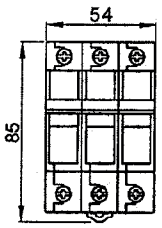


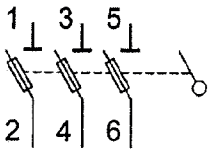


TFBR-323 3P **495.-**









FUSE BOX (With indicator lamp) ฟิวบ๊อกชนิดมีหลอดไฟ

TFBR-321N 1P **200.-**



TFBR-322N 2P **400.-**



TFBR-323N 3P **605.-**



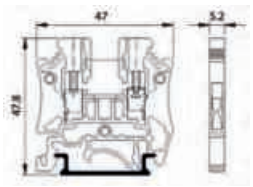
tend TERMINAL BLOCK
แผงต่อสาย

FEATURES

- TBU terminal block may fit in either TBR-N or TBU-N rails simply with the frame-pressed line.
- It's made of quenched and galvanized premium ateel.
- Can use matching short-circuit tag.The design confirm to the requirement of international standard IEC 60947-7-1

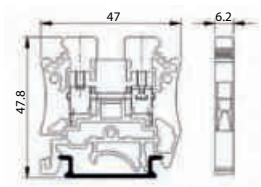
TBU - 2.5N





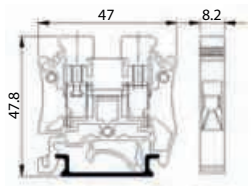
TBU - 4N





TBU - 6N





Specifications	Price 31.-	Price 35.-	Price 44.-
Specifications	**IEC**	**IEC**	**IEC**
Rated current	24A	32A	41A
Rated voltage	800V	800V	800V
Cross-section	2.5 mm^2	4 mm^2	6 mm^2
Single center	22-12 AWG	22-10 AWG	20-8 AWG
Conplex center	22-12 AWG	22-10 AWG	20-8 AWG
Rated impulse voltage	5 KV	5 KV	5 KV
Tightening torque range	4 kgf.cm	6 kgf.cm	10 kgf.cm
Clamping screw	M 2.6	M 3	M 3.5
Insulation striping length	10 ~ 12 mm	10 ~ 12 mm	10 ~ 12 mm

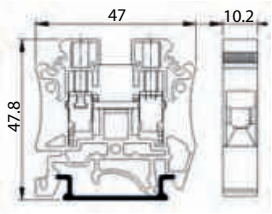
Accessories	Type		Qty.	Type		Qty.	Type		Qty.
Marking tags	TBU2.5N-A		100	TBU4N-A		100	TBU6N-A		100
End bracket	TBU2.5N-F		10	TBU2.5N-F		10	TBU2.5N-F		10
End plate	TBU2.5N-H		100	TBU2.5N-H		100	TBU2.5N-H		100
Mounting rails	TBR-N(AI)/TBR-S(S)		1M	TBR-N(AI)/TBR-S(S)		1M	TBR-N(AI)/TBR-S(S)		1M
	TBU-N(AI)/TBU-S(S)		1M	TBU-N(AI)/TBU-S(S)		1M	TBU-N(AI)/TBU-S(S)		1M
Cross-connection system	TBU2.5N-CU2	2P	50	TBU4N-CU2	2P	50	TBU6N-CU2	2P	50
	TBU2.5N-CU3	3P	50	TBU4N-CU3	3P	50	TBU6N-CU3	3P	50
	TBU2.5N-CU4	4P	50	TBU4N-CU4	4P	50	TBU6N-CU4	4P	50
	TBU2.5N-CU10	10P	20	TBU4N-CU10	10P	20	TBU6N-CU10	10P	20
Cross-connection combs	TBU2.5N-CS2	2P	50	TBU4N-CS2	2P	50	TBU6N-CS2	2P	50
	TBU2.5N-CS3	3P	50	TBU4N-CS3	3P	50	TBU6N-CS3	3P	50
	TBU2.5N-CS4	4P	50	TBU4N-CS4	4P	50	TBU6N-CS4	4P	50
	TBU2.5N-CS10	10P	20	TBU4N-CS10	10P	20	TBU6N-CS10	10P	20

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend TERMINAL BLOCK
แผงต่อสาย

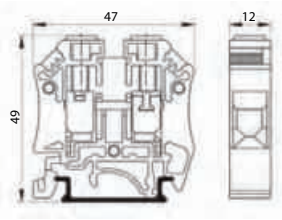
TBU - 10N





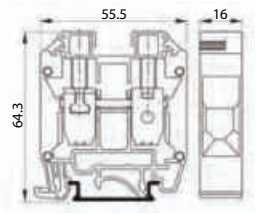
TBU - 16N





TBU - 35N





TBU - 50N





Price 55.-	Price 94.-	Price 150.-	Price 420.-
IEC	**IEC**	**IEC**	**IEC**
57A	76A	125A	150A
800V	800V	800V	1000V
10 mm^2	16 mm^2	35 mm^2	50 mm^2
16-6 AWG	14-6 AWG	12-2 AWG	6-1/0 AWG
16-6 AWG	14-6 AWG	12-2 AWG	6-1/0 AWG
5 KV	5 KV	5 KV	5 KV
16 kgf.cm	30 kgf.cm	50 kgf.cm	50 kgf.cm
M 4	M 5	M 6	M 6
10~12 mm	10~12 mm	15~20 mm	25~30 mm

Type	Qty.	Type	Qty.	Type	Qty.	Type	Qty.
TBU10N-A	100	TBU10N-A	100	TBU10N-A	100	TBU50N-A	50
TBU2.5N-F	10	TBU2.5N-F	10	TBU35N-F	10	TBU35N-F	10
TBU2.5N-H	100	TBU2.5N-H	100	TBU35N-H	50		
TBR-N /TBR-S	1M	TBR-N /TBR-S	1M	TBR-N /TBR-S	1M	TBR-N(Al)/TBR-S(S)	1M
TBU-N / TBU-S	1M	TBU-N / TBU-S	1M	TBU-N / TBU-S	1M	TBU-N(Al)/TBU-S(S)	1M
TBU10N-CU2 2P	50	TBU16N-CU2 2P	50	TBU35N-CU2 2P	50		
TBU10N-CU3 3P	50	TBU16N-CU3 3P	50	TBU35N-CU3 3P	50		
TBU10N-CU4 4P	50	TBU16N-CU4 4P	50	TBU35N-CU4 4P	50		
TBU10N-CU10 10P	20	TBU16N-CU10 10P	10	TBU35N-CU10 10P	10		
TBU10N-CS2 2P	50	TBU16N-CS2 2P	50	TBU35N-CS2 2P	50		
TBU10N-CS3 3P	50	TBU16N-CS3 3P	50	TBU35N-CS3 3P	50		
TBU10N-CS4 4P	50	TBU16N-CS4 4P	50	TBU35N-CS4 4P	50		
TBU10N-CS10 10P	20	TBU16N-CS10 10P	10	TBU35N-CS10 10P	10		

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

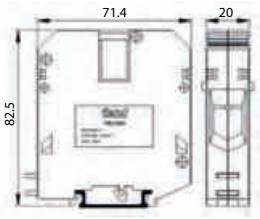
TERMINAL BLOCK
แผงต่อสาย

FEATURES

- TBU terminal block and TBE earthed terminal block may fit in either TBR-N or TBU-N rails simple with the frame pressed line.
- It's made of quenched and galvanized premium steel.
- Can use matching short circuit tag.The design conforms to the requirement of international standard IEC60947-7-1 and IEC60947-7-2.

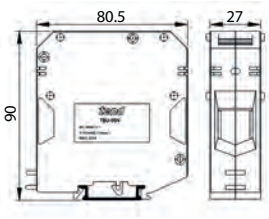
TBU - 70N





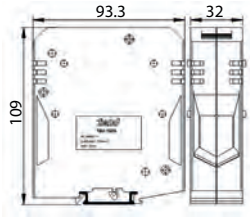
TBU - 95N





TBU - 150N





Specifications	Price 490.-	Price 550.-	Price 650.-
Specifications	**IEC**	**IEC**	**IEC**
Rated current	200A	232A	269A
Rated voltage	1000V	1000V	1000V
Cross-section	70 mm^2	95 mm^2	150 mm^2
Single center	6-2/0 AWG	2-3/0 AWG	2-300 AWG
Conplex center	6-2/0 AWG	2-3/0 AWG	2-300 AWG
Rated impulse voltage	5 KV	5 KV	5 KV
Tighting torque range	50 kgf.cm	90 kgf.cm	165 kgf.cm
Clamping screw	M 6	M 8	M 10
Insulation stripping lenght	25~30 mm	30~35 mm	35~40 mm

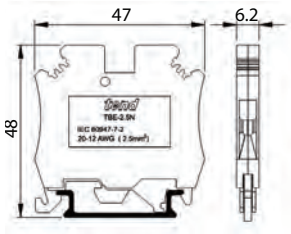
Accessories	Type	Qty.	Type	Qty.	Type	Qty.
Marking tags	TBU50N-A	50	TBU50N-A	50	TBU50N-A	50
End bracket	TBU35N-F	10	TBU35N-F	10	TBU35N-F	10
Mounting rails	TBR-N(Al)/TBR-S(S)	1M	TBR-N(Al)/TBR-S(S)	1M	TBR-N(Al)/TBR-S(S)	1M
	TBU-N(Al)/TBU-S(S)	1M	TBU-N(Al)/TBU-S(S)	1M	TBU-N(Al)/TBU-S(S)	1M

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

GROUND TERMINAL BLOCK
แผงต่อสาย ชนิดมีสายกราวด์

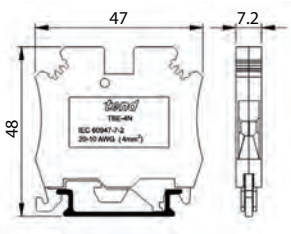
TBE - 2.5N





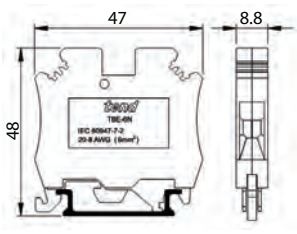
TBE - 4N





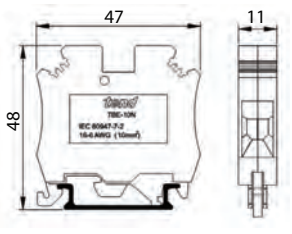
TBE - 6N





TBE - 10N





Price 140.-	Price 150.-	Price 165.-	Price 190.-
IEC	IEC	IEC	IEC
24 A	32 A	41 A	57A
-	-	-	-
2.5 mm^2	4 mm^2	6 mm^2	10 mm^2
22-12 AWG	22-10 AWG	22-8 AWG	16-6 AWG
22-12 AWG	22-10 AWG	22-8 AWG	16-6 AWG
5 KV	5 KV	5 KV	5 KV
4 kgf.cm	6 kgf.cm	10 kgf.cm	16 kgf.cm
M 2.6	M 3	M 3.5	M 4
10~12 mm	10~12 mm	10~12 mm	10~12 mm

Type	Qty.	Type	Qty.	Type	Qty.	Type	Qty.
TBU4N-A	100	TBU4N-A	100	TBU6N-A	100	TBU10N-A	100
TBU2.5N-F	10	TBU2.5N-F	10	TBU2.5N-F	10	TBU2.5N-F	10
TBR-N(AI)/TBR-S(S)	1M	TBR-N(AI)/TBR-S(S)	1M	TBR-N(AI)/TBR-S(S)	1M	TBR-N(AI)/TBR-S(S)	1M
TBU-N(AI)/TBU-S(S)	1M	TBU-N(AI)/TBU-S(S)	1M	TBU-N(AI)/TBU-S(S)	1M	TBU-N(AI)/TBU-S(S)	1M

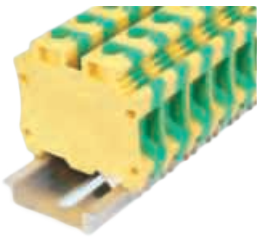
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

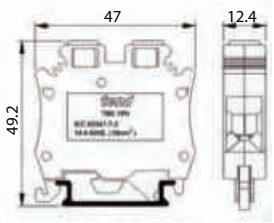
GROUND TERMINAL BLOCK
แผงต่อสาย ชนิดมีสายกราวด์

FEATURE

- TBE earthed terminal block may fit in either TBR-N or TBU-N rails simply with the frame-pressed line.
- It's made of quenched and galvanized premium steel.
- Can use matching short-circuit tag. The design conforms to thr require ment of international standard IEC60947-7-2.

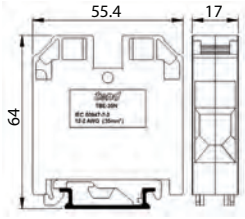
TBE-16N



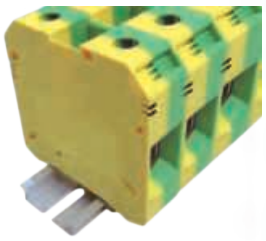


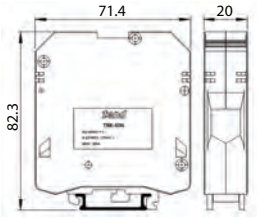
TBE-35N





TBE-50N



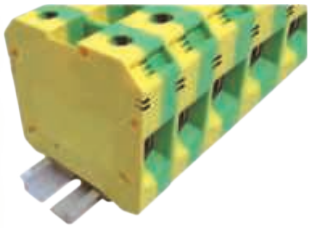


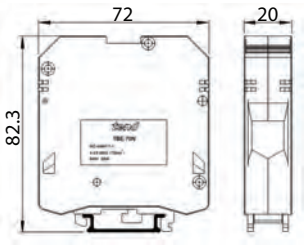
Specifications	Price 255.-	Price 375.-	Price 765.-
Specifications	**IEC**	**IEC**	**IEC**
Rated current	76A	125A	150A
Cross-section	16 mm²	35 mm²	50 mm²
Single center	14-6 AWG	12-2 AWG	6-1/0 AWG
Complex center	14-6 AWG	12-2 AWG	6-1/0 AWG
Rated impulse voltage	5 KV	5 KV	5 KV
Tighting torque range	30 kgf.cm	50 kgf.cm	50 kgf.cm
Clamping screw	M 5	M 6	M 6
Insulation stripping lenght	10~12 mm	15~20 mm	25~30 mm
Accessories	**Type / Qty.**	**Type / Qty.**	**Type / Qty.**
Marking tags	TBU10N-A 100	TBU10N-A 100	TBU50N-A 50
End bracket	TBU2.5N-F 10	TBU35N-F 10	TBU35N-F 10
Mounting rails	TBR-N(AI)/TBR-S(S) 1M	TBR-N(AI)/TBR-S(S) 1M	TBR-N(AI)/TBR-S(S) 1M
	TBU-N(AI)/TBU-S(S) 1M	TBU-N(AI)/TBU-S(S) 1M	TBU-N(AI)/TBU-S(S) 1M

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

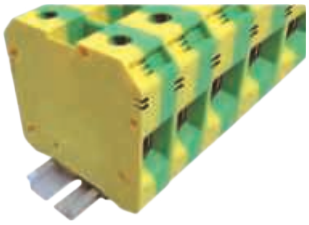
tend GROUND TERMINAL BLOCK
แผงต่อสาย ชนิดมีสายกราวด์

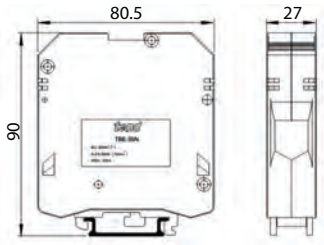
TBE - 70N



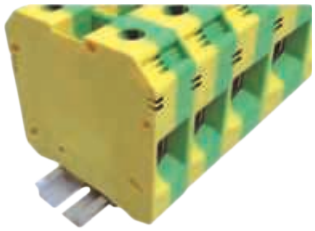


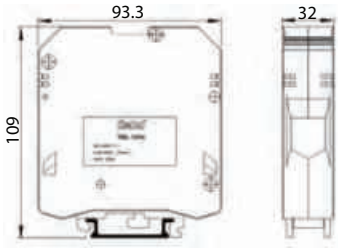
TBE - 95N





TBE - 150N





Price 880.-	Price 990.-	Price 1,740.-
IEC	IEC	IEC
200A	232A	269A
70 mm 2	95 mm 2	150 mm 2
6-2/0 AWG	2-3/0 AWG	2-300 AWG
6-2/0 AWG	2-3/0 AWG	2-300 AWG
5 KV	5 KV	5 KV
50 kgf.cm	90 kgf.cm	165 kgf.cm
M 6	M 8	M 10
25~30 mm	30~35 mm	35~40 mm

Type	Qty.	Type	Qty.	Type	Qty.
TBU50N-A	50	TBU50N-A	50	TBU50N-A	50
TBU35N-F	10	TBU35N-F	10	TBU35N-F	10
TBR-N(AI)/TBR-S(S)	1M	TBR-N(AI)/TBR-S(S)	1M	TBR-N(AI)/TBR-S(S)	1M
TBU-N(AI)/TBU-S(S)	1M	TBU-N(AI)/TBU-S(S)	1M	TBU-N(AI)/TBU-S(S)	1M

tend FUSE HOLDER TERMINAL BLOCK

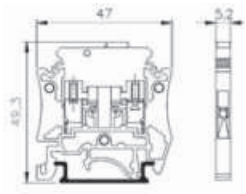
แผงต่อสาย ชนิดมีฐานฟิวส์

FEATURES

- TBT disconnect test terminal block and TBFV(H) fuse terminal block may fit in either TBR-N or TBU-N rails simply with the frame-pressed line.
- It's made of quenched and galvanized premium steel.
- Can use matching short-circuit tag.The design conforms to the require ment of international atandard IEC60947-7-1.

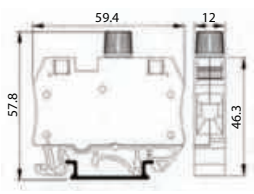
TBT-2.5N 81.-





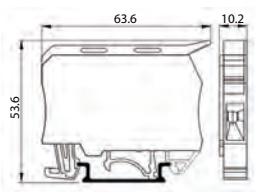
TBFV ไม่มีหลอด LED 315.-
TBFV-1 มีหลอด LED 345.- (10-3 V AC/DC)
TBFV-2 มีหลอด LED 345.- (110-250 V AC/DC)





TBFH ไม่มีหลอด LED 295.-
TBFH-1 มีหลอด LED 325.- (10-3 V AC/DC)
TBFH-2 มีหลอด LED 325.- (110-250 V AC/DC)





Specifications	IEC	IEC	IEC
Rated current	10A	10A	6.3A
Rated voltage	400V	500V	400V
Cross-section	2.5 mm^2	10 mm^2	4 mm^2
Single center	22-12 AWG	16-6 AWG	22-10 AWG
Complex center	22-12 AWG	16-6 AWG	22-10 AWG
Rated impulse voltage	5 KV	5 KV	5 KV
Tighting torque range	4 kgf.cm	16 kgf.cm	6 kgf.cm
Clamping screw	M 2.6	M 4	M 3
Insulation stripping lenght	10~12 mm	10~12 mm	10~12 mm
G-fuse inserts	-	Ø5x20	Ø 5x20 / Ø5x25

Accessories	Type		Qty.	Type		Qty.	Type		Qty.
Marking tags	TBU2.5N-A		100	TBU10N-A		100	TBU6N-A		100
End bracket	TBU2.5N-F		10	TBU2.5N-F		10	TBU2.5N-F		10
End plate	TBU2.5N-H		100	-			TBUF-H		100
Mounting rails	TBR-N(AI)/TBR-S(S)		1M	TBR-N(AI)/TBR-S(S)		1M	TBR-N(AI)/TBR-S(S)		1M
	TBU-N(AI)/TBU-S(S)		1M	TBU-N(AI)/TBU-S(S)		1M	TBU-N(AI)/TBU-S(S)		1M
Cross-connertion system	-			TBU16N-CU2	2P	50	-		
	-			TBU16N-CU3	3P	50	-		
	TBU2.5N-CS2	2P	50	TBU16N-CS2	2P	50	TBU10N-CS2	2P	50
	TBU2.5N-CS3	3P	50	TBU16N-CS3	3P	50	TBU10N-CS3	3P	50
Cross-connertion comb	TBU2.5N-CS4	4P	50	TBU16N-CS4	4P	50	TBU10N-CS4	4P	50
	TBU2.5N-CS10	10P	20	TBU16N-CS10	10P	20	TBU10N-CS10	10P	20
	TBU2.5N-CS4	4P	50	TBU4N-CS4	4P	50	TBU10N-CS4	4P	50
	TBU2.5N-CS10	10P	20	TBU4N-CS10	10P	20	TBU10N-CS10	10P	20

Specifications	Description
LED	TBFV-1/TBFH-1:10~30V AC/DC / TBFV-2/TBFH-2:110~250V AC

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MARKING TAG
แท็กเครื่องหมาย

MARKING TAGS
TBU..N-A (BLANK TAGS)
TBU..N-A1 / A0110 / AL /AU
Note : 1 Tag piece -10 pcs. of numbers

										= TBU... N-A
1	1	1	1	1	1	1	1	1	1	= TBU... N-A1
1	2	3	4	5	6	7	8	9	10	= TBU... N-A0110
L1	L2	L3	N	PE	L1	L2	L3	N	PE	= TBU... N-AL
U	V	W	N	U	V	W	N	U	V	= TBU... N-AU

TBU-2.5N ราคาเส้นละ 17.- 1 เส้น มี 10 ตัว

Model	Tag	Piece
TBU2.5N-A		100
TBU2.5N-A1	1	100
TBU2.5N-A2	2	100
TBU2.5N-A3	3	100
TBU2.5N-A4	4	100
TBU2.5N-A5	5	100
TBU2.5N-A6	6	100
TBU2.5N-A7	7	100
TBU2.5N-A8	8	100
TBU2.5N-A0	0	100
TBU2.5N-A0110	1~10	100
TBU2.5N-A1120	11~20	100
TBU2.5N-A2130	21~30	100
TBU2.5N-A3140	31~40	100
TBU2.5N-A4150	41~50	100
TBU2.5N-AL	L1,L2,L3,N,PE	100
TBU2.5N-AU	U,V,W,N ⏚	100

TBU-4N ราคาเส้นละ 17.- 1 เส้น มี 10 ตัว

Model	Tag	Piece
TBU4N-A		100
TBU4N-A1	1	100
TBU4N-A2	2	100
TBU4N-A3	3	100
TBU4N-A4	4	100
TBU4N-A5	5	100
TBU4N-A6	6	100
TBU4N-A7	7	100
TBU4N-A8	8	100
TBU4N-A0	0	100
TBU4N-A0110	1~10	100
TBU4N-A1120	11~20	100
TBU4N-A2130	21~30	100
TBU4N-A3140	31~40	100
TBU4N-A4150	41~50	100
TBU4N-AL	L1,L2,L3,N,PE	100
TBU4N-AU	U,V,W,N ⏚	100

TBU-6N ราคาเส้นละ 25.- 1 เส้น มี 10 ตัว

Model	Tag	Piece
TBU6N-A		100
TBU6N-A1	1	100
TBU6N-A2	2	100
TBU6N-A3	3	100
TBU6N-A4	4	100
TBU6N-A5	5	100
TBU6N-A6	6	100
TBU6N-A7	7	100
TBU6N-A8	8	100
TBU6N-A0	0	100
TBU6N-A0110	1~10	100
TBU6N-A1120	11~20	100
TBU6N-A2130	21~30	100
TBU6N-A3140	31~40	100
TBU6N-A4150	41~50	100
TBU6N-AL	L1,L2,L3,N,PE	100
TBU6N-AU	U,V,W,N ⏚	100

TBU-10N ราคาเส้นละ 25.- 1 เส้น มี 10 ตัว

Model	Tag	Piece
TBU10N-A		100
TBU10N-A1	1	100
TBU10N-A2	2	100
TBU10N-A3	3	100
TBU10N-A4	4	100
TBU10N-A5	5	100
TBU10N-A6	6	100
TBU10N-A7	7	100
TBU10N-A8	8	100
TBU10N-A0	0	100
TBU10N-A0110	1~10	100
TBU10N-A1120	11~20	100
TBU10N-A2130	21~30	100
TBU10N-A3140	31~40	100
TBU10N-A4150	41~50	100
TBU10N-AL	L1,L2,L3,N,PE	100
TBU10N-AU	U,V,W,N ⏚	100

TBU-50N ราคาตัวละ 4.-

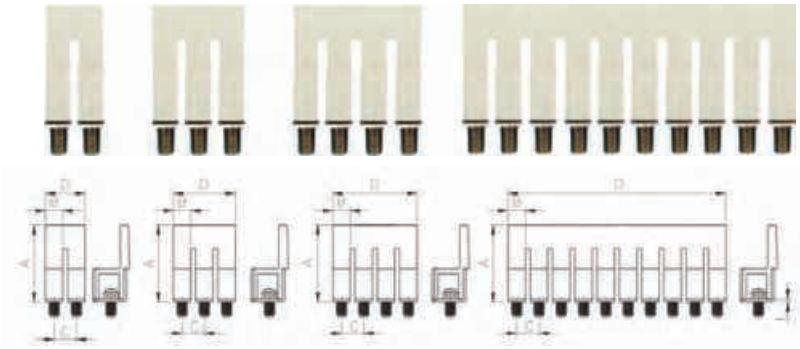
Model	Tag	Piece
TBU50N-A		100
TBU50N-A1	1	100
TBU50N-A2	2	100
TBU50N-A3	3	100
TBU50N-A4	4	100
TBU50N-A5	5	100
TBU50N-A6	6	100
TBU50N-A7	7	100
TBU50N-A8	8	100
TBU50N-A0	0	100
TBU50N-A0110	1~10	100
TBU50N-A1120	11~20	100
TBU50N-A2130	21~30	100
TBU50N-A3140	31~40	100
TBU50N-A4150	41~50	100
TBU50N-AL	L1,L2,L3,N,PE	100
TBU50N-AU	U,V,W,N ⏚	100

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

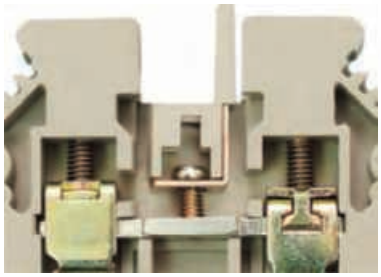
tend SHORT LINK
แผ่นเชื่อม

SHORTING LINK

TBU☐N-CU☐Cross-connection system



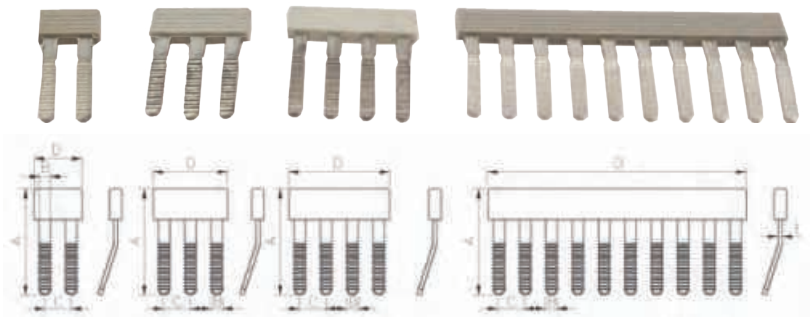
Cross-connection System

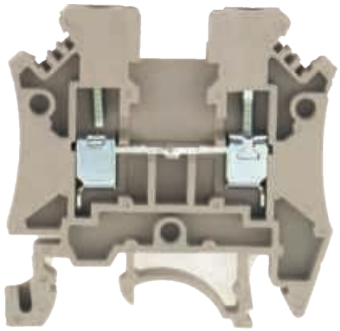


Type	Price	Pole	Use at	Qty.	Dimension				
					A	B	C	D	t
TBU2.5N-CU2	27.-	2	TBU-2.5N	50	17.8	4	5.1	9.1	0.6
TBU2.5N-CU3	40.-	3	TBU-2.5N	50	17.8	4	5.1	14.2	0.6
TBU2.5N-CU4	53.-	4	TBU-2.5N	50	17.8	4	5.1	19.3	0.6
TBU2.5N-CU10	135.-	10	TBU-2.5N	20	17.8	4	5.1	49.9	0.6
TBU4N-CU2	33.-	2	TBU-4N	50	18.2	4.5	6.2	10.7	1
TBU4N-CU3	48.-	3	TBU-4N	50	18.2	4.5	6.2	16.9	1
TBU4N-CU4	66.-	4	TBU-4N	50	18.2	4.5	6.2	23.1	1
TBU4N-CU10	160.-	10	TBU-4N	20	18.2	4.5	6.2	60.3	1
TBU6N-CU2	40.-	2	TBU-6N	50	18.2	6.2	8.2	14.4	1
TBU6N-CU3	55.-	3	TBU-6N	50	18.2	6.2	8.2	22.6	1
TBU6N-CU4	81.-	4	TBU-6N	50	18.2	6.2	8.2	30.8	1
TBU6N-CU10	190.-	10	TBU-6N	20	18.2	6.2	8.2	80	1

Type	Price	Pole	Use at	Qty.	Dimension				
					A	B	C	D	t
TBU10N-CU2	47.-	2	TBU-10N	50	24.9	8	10.2	18.2	1
TBU10N-CU3	66.-	3	TBU-10N	50	24.9	8	10.2	28.4	1
TBU10N-CU4	94.-	4	TBU-10N	50	24.9	8	10.2	38.6	1
TBU10N-CU10	235.-	10	TBU-10N	20	24.9	8	10.2	99.8	1
TBU16N-CU2	55.-	2	TBU-16N	50	26.2	9.4	12	21.4	1
TBU16N-CU3	88.-	3	TBU-16N	50	26.2	9.4	12	33.4	1
TBU16N-CU4	115.-	4	TBU-16N	50	26.2	9.4	12	45.4	1
TBU16N-CU10	295.-	10	TBU-16N	10	26.2	9.4	12	117.4	1
TBU35N-CU2	77.-	2	TBU-35N	50	26.8	11.5	15.9	27.4	1.6
TBU35N-CU3	120.-	3	TBU-35N	50	26.8	11.5	15.9	43.3	1.6
TBU35N-CU4	155.-	4	TBU-35N	50	26.8	11.5	15.9	59.2	1.6
TBU35N-CU10	375.-	10	TBU-35N	10	26.8	11.5	15.9	154.6	1.6

TBU☐N-CS Cross-connection comb





Type	Price	Pole	Use at	Qty.	Dimension				
					A	B	C	D	t
TBU2.5N-CS2	27.-	2	TBU-2.5N	50	20.6	2.2	5.1	9.3	0.8
TBU2.5N-CS3	40.-	3	TBU-2.5N	50	20.6	2.2	5.1	14.4	0.8
TBU2.5N-CS4	53.-	4	TBU-2.5N	50	20.6	2.2	5.1	19.5	0.8
TBU2.5N-CS10	135.-	10	TBU-2.5N	20	20.6	2.2	5.1	50.1	0.8
TBU4N-CS2	27.-	2	TBU-4N	50	21.5	2.5	6.2	10.7	1
TBU4N-CS3	40.-	3	TBU-4N	50	21.5	2.5	6.2	16.9	1
TBU4N-CS4	53.-	4	TBU-4N	50	21.5	2.5	6.2	23.1	1
TBU4N-CS10	135.-	10	TBU-4N	20	21.5	2.5	6.2	60.3	1
TBU6N-CS2	27.-	2	TBU-6N	50	23.8	3.6	8.2	14.8	1.2
TBU6N-CS3	40.-	3	TBU-6N	50	23.8	3.6	8.2	23	1.2
TBU6N-CS4	53.-	4	TBU-6N	50	23.8	3.6	8.2	31.2	1.2
TBU6N-CS10	150.-	10	TBU-6N	20	23.8	3.6	8.2	80.4	1.2

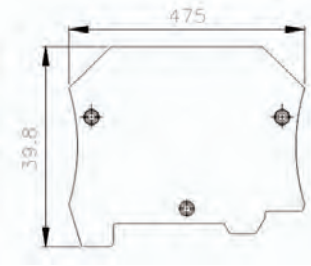
Type	Price	Pole	Use at	Qty.	Dimension				
					A	B	C	D	t
TBU10N-CS2	33.-	2	TBU-10N	50	29.4	5.4	10.2	18.4	1.6
TBU10N-CS3	47.-	3	TBU-10N	50	29.4	5.4	10.2	28.6	1.6
TBU10N-CS4	66.-	4	TBU-10N	50	29.4	5.4	10.2	38.8	1.6
TBU10N-CS10	160.-	10	TBU-10N	20	29.4	5.4	10.2	100	1.6
TBU16N-CS2	40.-	2	TBU-16N	50	31	6.6	12	21	1.6
TBU16N-CS3	58.-	3	TBU-16N	50	31	6.6	12	33	1.6
TBU16N-CS4	77.-	4	TBU-16N	50	31	6.6	12	45	1.6
TBU16N-CS10	190.-	10	TBU-16N	10	31	6.6	12	117	1.6
TBU35N-CS2	51.-	2	TBU-35N	50	37.2	8.4	15.9	29.6	1.6
TBU35N-CS3	77.-	3	TBU-35N	50	37.2	8.4	15.9	45.6	1.6
TBU35N-CS4	105.-	4	TBU-35N	50	37.2	8.4	15.9	61.6	1.6
TBU35N-CS10	255.-	10	TBU-35N	10	37.2	8.4	15.9	157.6	1.6

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend ACCESSORIES
อุปกรณ์เสริม

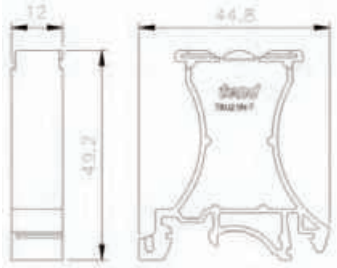
DIMENSION

TBU2.5N-H 11.-
TBU2.5N end plate (for TBU-2.5N ~ 16N)

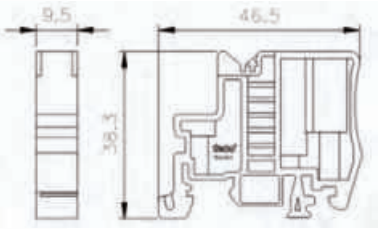
END PLATE

TBU2.5N-T 27.-
TBU2.5N end marking tags

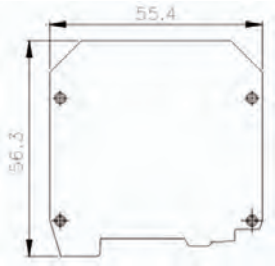
END MARKING TAG

TBU2.5N-F 22.-
TBU2.5N end bracket (for TBU-2.5N ~ 16N)

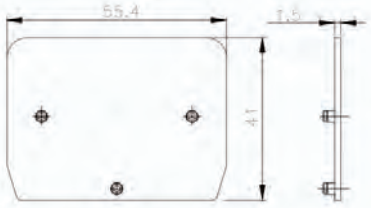
STOPPER

TBU35N-H 30.-
TBU35N end plate (for TBU ~ 35N)

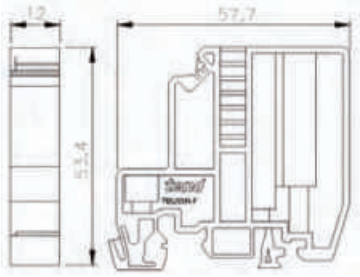
END PLATE

TBU2.5N-K 17.-
TBU2.5N partition (for TBU-2.5N ~ 16N)

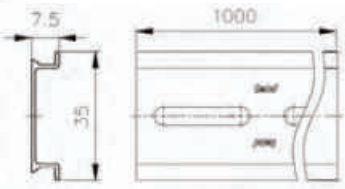
PARTITION

TBU35N-F 40.-
TBU35N end plate (for TBU-35N ~ 150N)

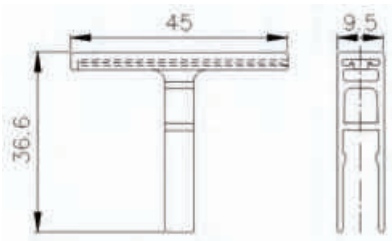



STOPPER

TBR-N mounting rails (Aluminium) 85.-
TBR-S mounting rails (Steel slotted)

TBU2.5N-B 27.-
TBU-2.5N end marking tags

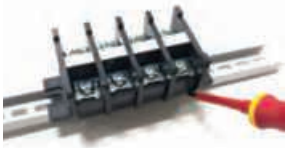
END MARKING TAG

tend RAIL-MOUNT TERMINAL BLOCK

แผงต่อสาย ชนิดใช้รางปีกนก ISO 9002

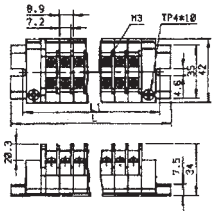
FEATURES เทอร์มินอลชนิดใช้รางปีกนก หรือ รางรุ่น TBR-N

- Uniformed specification expedites mounting-suitable for DIN rails for relay sockets. Time switch sockets. (Fig.4)
- TBR-10.20.30 terminal blocks dismounting leads to easy and swift maintenance by pressing down with a little effort will get it firmly fixed.
  (Fig.1) putting a " _ " shaped screw driver in the rabbet then turning arrowheadware as shown dismounted. (Fig.2)
- The fixation and disassembly of stop plates are same as those of TBR-10,20,30. The fixation can be achieved by firmly tightening the screws on stop plates.
- In assembling TBR-60, 100, 200, align the groove on the buttom of the terminal blocks to one end of the rail, push them, and use stop plates on both sides to make them firmly fixed. (see Fig.5)
- TBR-60, 100, 200 terminal blocks can be connected with TBC-10,20,30 terminal blocks on TBC-N rail. (see Fig.6 on p.20)

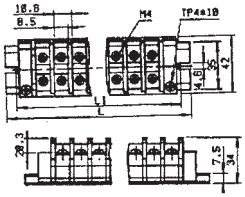



TBR-10-10 10P ราคาเส้นละ **180.-**
ฝาข้าง (END PLATE) **11.-**

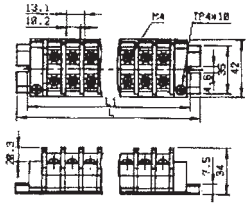
L = 38 + 8.9 × n L1 = 22.5 + 8.9 × n n = No. of Poles

TBR-20-10 10P ราคาเส้นละ **220.-**
ฝาข้าง (END PLATE) **11.-**

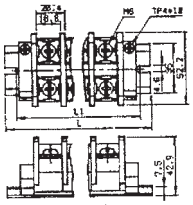
L = 38 + 10.8 × n L1 = 22.5 + 10.8 × n n = No. of Poles

TBR-30-10 10P ราคาเส้นละ **320.-**
ฝาข้าง (END PLATE) **11.-**

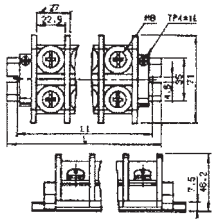
L = 38 + 13.1 × n L1 = 22.5 + 13.1 × n n = No. of Poles

TBR-60 ราคาเส้นละ **61.-**
ฝาข้าง (END PLATE) **27.-**

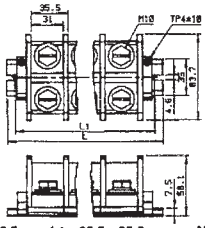
L = 38 + 20.4 × n L1 = 22.5 + 20.4 × n n = No. of Poles

TBR-100 ราคาเส้นละ **125.-**
ฝาข้าง (END PLATE) **50.-**

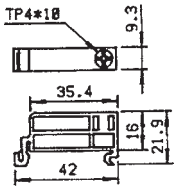
L = 38 + 27 × n L1 = 22.5 + 27 × n n = No. of Poles

TBR-200 ราคาเส้นละ **315.-**
ฝาข้าง (END PLATE) **145.-**

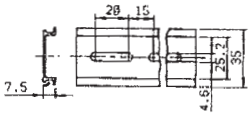



L = 38 + 35.5 × n L1 = 22.5 + 35.5 × n n = No. of Poles

TBR-F (Stopper) **17.-**

TBR-N ยาว 1 เมตร **85.-**

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

DOUBLE LEVEL TERMINAL BLOCK

แผงต่อสาย ชนิดใช้ราง ไม่ใช้ราง ใช้รางตัว C หรือใช้รุ่น TBC-N, TBR-N

ISO 9002

FEATURES เทอร์มินอลชนิดใช้ราง หรือไม่ใช้รางก็ได้ หรือชนิดใช้รางตัว C หรือใช้รุ่น TBC-N, TBR-N

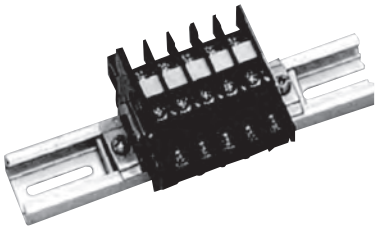
- Shorten the length of terminal blocks and save the space for wiring.
- Three ways of assembly:
  Direct cassette assembly makes it very solid and no need of using iron bar for stringing less than 15P terminal blocks.
  TBC-N rail can be connected with TBC-10, 20, 30 and TBR-60, 100, 200.
  TBR-N can be fixed by pressing down directly, be disassembled by pushing to both ends, and be connected with TBR-10, 20, 30, 60, 100, 200

TBD-10 (10A 600V max)

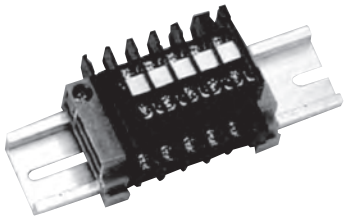
CASSETTE ASSEMBLY TYPE



TBC-N RAIL-MOUNT TYPE

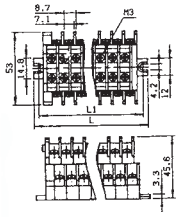


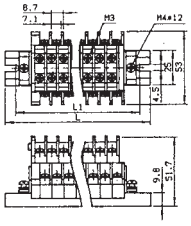
TBR-N RAIL-MOUNT TYPE

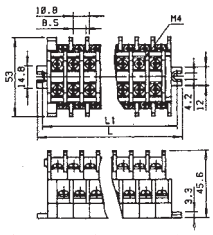


TBD 10-10 10P 10A 2ชั้น ใช้รางหรือไม่ใช้รางก็ได้ **ราคาเส้นละ 400.-**

TBD-10E ฝาปิดข้าง (END PLATE) **11.-**







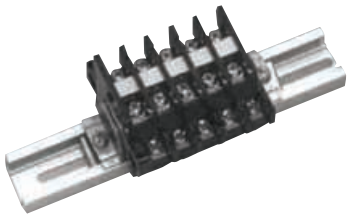
No. of poles	2	3	4	5	6	7	8	9	10	11	12
L	3	47.7	56.4	65.1	73.8	82.5	91.2	99.9	108.6	117.3	126
L1	32.6	41.3	50	58.7	67.4	76.1	84.8	93.5	102.2	110.9	119.6

TBD-20 (20A 600V max)

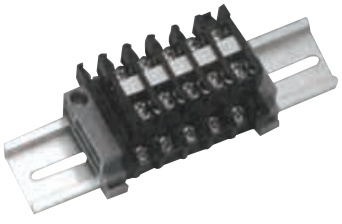
CASSETTE ASSEMBLY TYPE



TBC-N RAIL-MOUNT TYPE

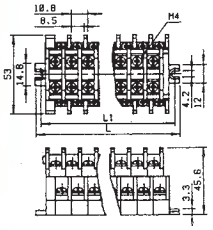


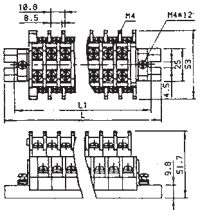
TBR-N RAIL-MOUNT TYPE

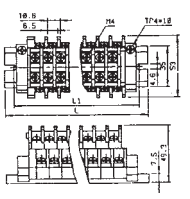


TBD 20-10 10P 20A 2 ชั้น ใช้รางหรือไม่ใช้รางก็ได้ **ราคาเส้นละ 460.-**

TBD-20E ฝาปิดข้าง (END PLATE) **11.-**







No. of poles	2	3	4	5	6	7	8	9	10	11	12
L	42.2	53	63.8	74.6	85.4	96.2	107	117.8	128.6	139.4	150.2
L1	35.8	46.6	57.4	68.2	79	89.8	100.6	111.4	122.2	133	143.8

ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CASSETS ASSEMBLY TERMINAL BLOCK

แผงต่อสาย ชนิดใช้ราง TBR-C หรือรางตัว C เท่านั้น ISO 9002

FEATURES เทอร์มินอลชนิดใช้ราง TBR-C หรือรางตัว C เท่านั้น

- No need of stringing iron bar or rail for less than 15P terminal blocks. Pushing 2P against each other will be OK. Switch and convenient. (Fig.1)
- Stringing iron bar or rail may be attached for more than 15P. In case of over than 30P, you may separate the whole assembly into 2 or 3-sec tions. Fixing the first section. The second and the next. No limitation on the desired length. Very solid and firm. (Fig.2)
- Use " - " shaped screw-driver to pry open from the bottom slot. (Fig.3)
- TBC-10, TBC-20 and TBC-30 are inter-stringable by using the same iron bar. (Fig.4)
- TBC-60, TBC-100 and TBC-200 TBC-300 are also inter-stringable by using the same iron bar. (Fig.5)
- Cassette assembly type terminal blocks, like TBC-10, 20, 30 can be mounted on TBC-N rail with TBR-60, 100, and 200, The combination is called Rail-Mount Termail Block. (see Fig.6)
- PC material ensures heat-resistance, good toughness and no crack.



(Fig.1)



(Fig.2)



(Fig.3)

TBC-10.20.30



(Fig.4)

TBC-60.100.200.300



(Fig.5)

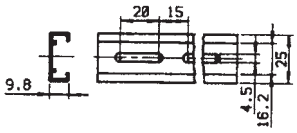
TBC-10.20.30 TBR-60.100.200



(Fig.6)

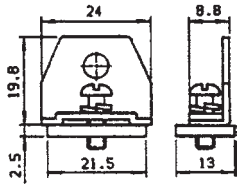
TBC-N ยาว 1 เมตร **85.-**





TBC-F **14.-**

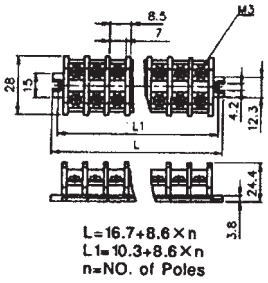




TBC10-10 10P ราคาเส้นละ **135.-**

TBC-10H ฝาข้าง (END PLATE) 8.-



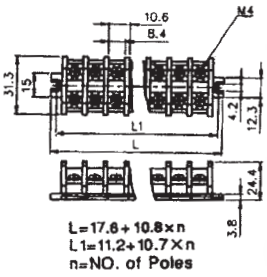


No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	33.9	42.5	51.1	59.7	68.3	76.9	85.5	94.1	102.7	111.3	119.9
L1	27.5	36.1	44.7	53.3	61.9	70.5	79.1	87.7	96.3	104.9	113.5

TBC20-10 10P ราคาเส้นละ **160.-**

TBC-20H ฝาข้าง (END PLATE) 8.-





No. of role	2	3	4	5	6	7	8	9	10	11	12
L	39	49.7	60.4	71.1	81.8	92.5	103.2	113.9	124.6	135.3	146
L1	32.6	43.3	54	64.7	75.4	86.1	96.8	107.5	118.2	128.9	139.6

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

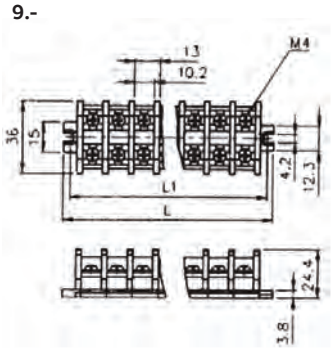
tend CASSETE ASSEMBLY TERMINAL BLOCK

แผงต่อสาย ชนิดใช้ราง TBR-C หรือรางตัว C เท่านั้น ISO 9002

TBC30-10 10P ราคาเส้นละ 240.-

TBC-30H ฝาข้าง (END PLATE) 9.-





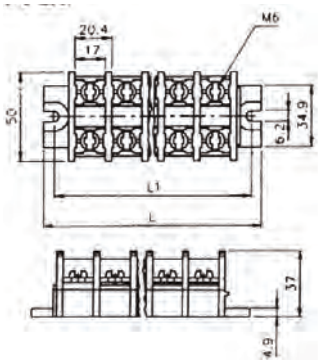
L=18+13.1×n
L1=11.6+13.1×n
n=NO. of Poles

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	44.2	57.3	70.4	83.5	96.6	109.7	122.8	135.9	149	162.1	175.2
L1	37.8	50.9	64	77.1	90.2	103.3	116.4	129.5	142.6	155.7	168.8

TBC60 4P 60A ราคาเส้นละ 235.-

3P 60A ราคาเส้นละ 175.-
6P 60A ราคาเส้นละ 345.-





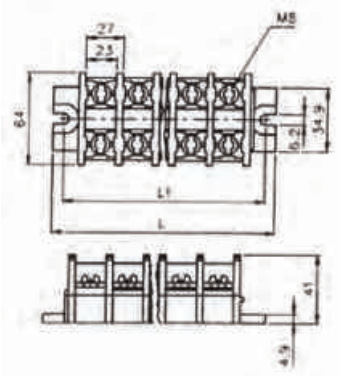
L=33.3+20.5×n
L1=18.3+20.5×n
n=NO. of Poles

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	74.3	94.8	115.3	135.8	156.3	176.8	197.3	217.8	238.3	258.8	279.3
L1	59.3	79.8	100.3	120.8	141.3	161.8	182.3	202.8	223.3	243.8	264.3

TBC100 4P 100A ราคาเส้นละ 515.-

3P 100A ราคาเส้นละ 385.-
6P 100A ราคาเส้นละ 765.-





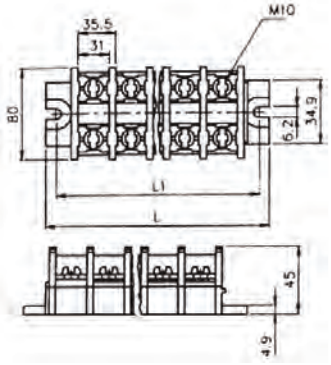
L=34+27.1×n
L1=19+27.1×n
n=NO. of Poles

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	88.2	115.3	142.4	169.5	196.6	223.7	250.8	277.9	305	332.1	359.2
L1	73.2	100.3	127.4	154.5	181.6	208.7	235.8	262.9	290	317.1	344.2

TBC200 4P 200A ราคาเส้นละ 1,240.-

3P 200A ราคาเส้นละ 925.-
6P 200A ราคาเส้นละ 1,850.-



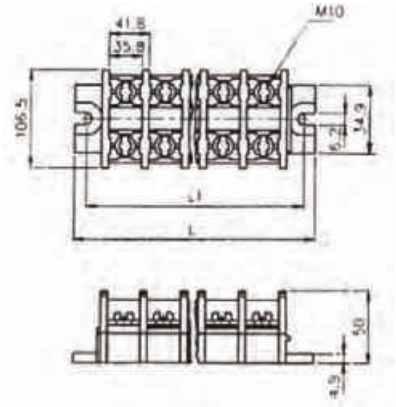


L=34.5+35.6×n
L1=19.5+35.6×n
n=NO. of Poles

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	105.7	141.3	176.9	212.5	248.1	283.7	319.3	354.9	390.5	426.1	461.7
L1	90.7	126.3	161.9	197.5	233.1	268.7	304.3	339.9	375.5	411.1	446.7

TBC300 3P 300A ราคาเส้นละ 1,355.-





L=36+41.9×n
L1=21+41.9×n
n=NO. of Poles

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	119.8	161.7	203.6	245.5	287.4	329.3	371.2	413.1	455	496.9	538.8
L1	104.8	146.7	188.6	230.5	272.4	314.3	356.2	398.1	440	481.9	523.8

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

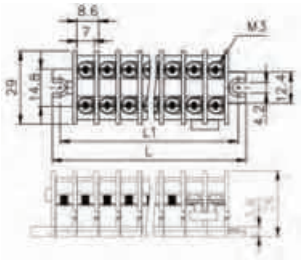
tend CASSETE ASSEMBLY TERMINAL BLOCK

แผงต่อสาย

ISO 9002

TBCN-10-10 10P10A **150.-**
TBCN-10H end plate ฝาข้าง **8.-**



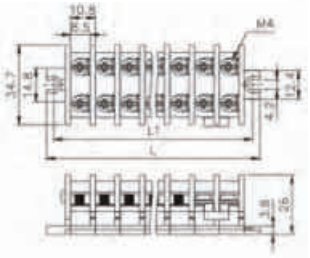


L = 16.8 + 8.6 x n
L1 = 10.6 + 8.6 x n
n = NO. of Pole

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	34	42.6	51.2	59.8	68.4	77	85.6	94.2	102.8	111.4	120
L1	27.8	36.4	45	53.6	62.2	70.8	79.4	88	96.6	105.2	103.8

TBCN-20-10 10P20A **180.-**
TBCN-20H end plate ฝาข้าง **8.-**





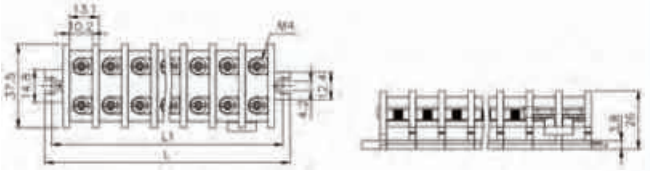
L = 17.60 + 10.8 x n
L1 = 11.30 + 10.8 x n
n = NO. of Pole

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	39.1	49.9	60.7	71.5	82.3	93.1	103.9	114.7	125.5	136.3	147.1
L1	32.9	43.7	54.5	65.3	76.1	86.9	97.7	108.5	119.3	130.1	140.9

TBCN-30-10 10P30A **255.-**
TBCN-30H end plate ฝาข้าง **9.-**



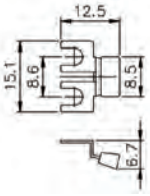
L = 18.1 + 13.1 x n
L1 = 11.9 + 13.1 x n
n = NO. of Pole



No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	44.3	57.4	70.5	83.6	96.7	109.8	122.9	136	149.1	162.2	175.3
L1	38.1	51.2	64.3	77.4	90.5	103.6	116.7	129.8	142.9	156	169.1

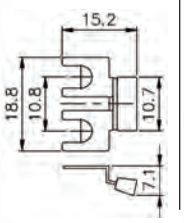
TBCN-10S **22.-**





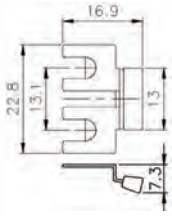
TBCN-20S **28.-**





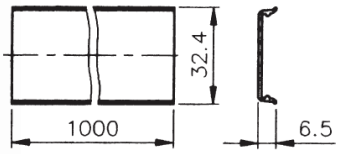
TBCN-30S **39.-**





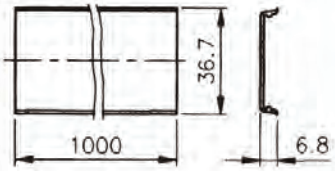
TBR-10C (TBC10,TBR10) **ยาวเส้นละ 1 เมตร** **150.-**





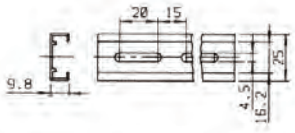
TBR-20C **ยาวเส้นละ 1 เมตร** **150.-**
(TBC20, TBR20, TBD10, 20)





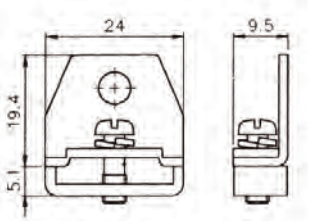
TBC-N **ราคาเส้นละ** **85.-**





TBC-F **ราคาชิ้นละ** **14.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

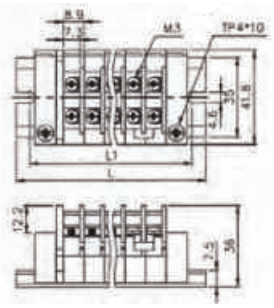
tend CASSETE ASSEMBLY TERMINAL BLOCK

แผงต่อสาย

ISO 9002

TBRN-10-10 10P10A **200.-**
TBRN-10H end plate ฝาข้าง **11.-**



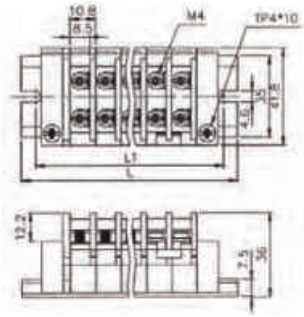


L = 38 + 8.9 x n
L1 = 22.50 + 8.9 x n
n = NO. of Pole

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	55.8	64.7	73.6	82.5	91.4	100.3	109.2	118.1	127	135.9	114.8
L1	40.3	49.2	58.1	67	75.9	84.8	93.7	102.6	111.5	120.4	129.3

TBRN-20-10 10P20A **245.-**
TBRN-20H end plate ฝาข้าง **11.-**





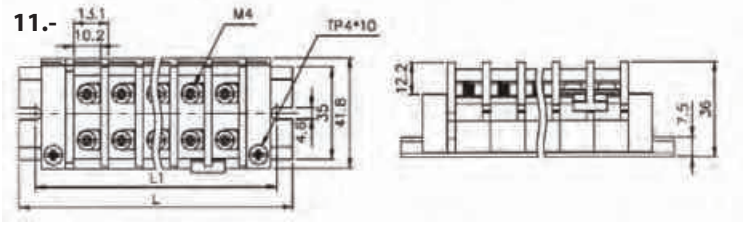
L = 38 + 10.8 x n
L1 = 22.50 + 10.8 x n
n = NO. of Pole

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	59.6	70.4	81.2	92	102.8	113.6	124.4	135.2	146	156.8	167.6
L1	44.1	54.9	65.7	76.5	87.3	98.1	108.9	119.7	130.5	141.3	152.1

TBRN-30-10 10P30A **350.-**
TBRN-30H end plate ฝาข้าง **11.-**



L = 38 + 13.1 x n
L1 = 22.50 + 13.1 x n
n = NO. of Pole

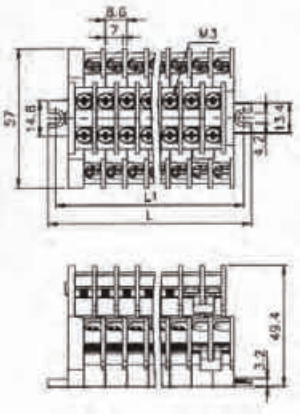


No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	64.2	77.3	90.4	103.5	116.6	129.7	142.8	155.9	169	182.1	195.2
L1	48.7	61.8	74.9	88	101.1	114.2	127.3	140.4	153.5	166.6	179.7

DOUBLE LEVEL TERMINAL BLOCKS TBCN,TBRN,TBDN

TBDN-10 **470.-**
TBDN-10H end plate ฝาข้าง **15.-**



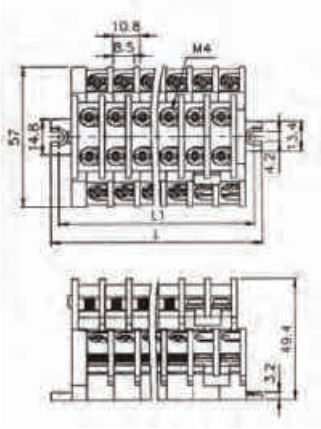


L = 24.80 + 8.6 x n
L1 = 18.40 + 8.6 x n
n = NO. of Pole

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	42	50.6	59.2	67.8	76.4	85	93.6	102.2	110.8	119.4	128
L1	35.6	44.2	52.8	61.4	70	78.6	87.2	95.8	104.4	113	121.6

TBDN-20 **540.-**
TBDN-20H end plate ฝาข้าง **15.-**





L = 24.80 + 10.8 x n
L1 = 18.40 + 10.8 x n
n = NO. of Pole

No. of roles	2	3	4	5	6	7	8	9	10	11	12
L	46.4	57.2	68	78.8	89.6	100.4	111.2	122	132.8	143.6	154.4
L1	40	50.8	61.6	72.4	83.2	94	104.8	115.6	126.4	137.2	148

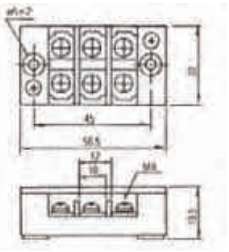
tend SOLID-TYPE TERMINAL BLOCK
แผงต่อสาย ชนิดโซลิด

FEATURE

TB-25 and TB-10, TB-20 Series : glass reinforced plastic, ensures heat-resistance, good toughness and no crack

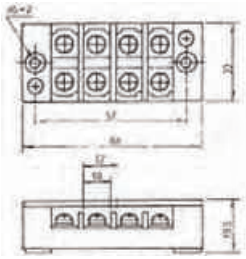
TB25-3 44.-





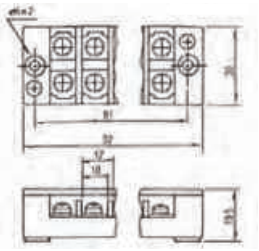
TB25-4 58.-





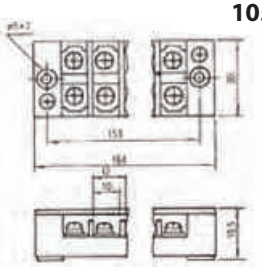
TB25-6 69.-





TB25-12 105.-



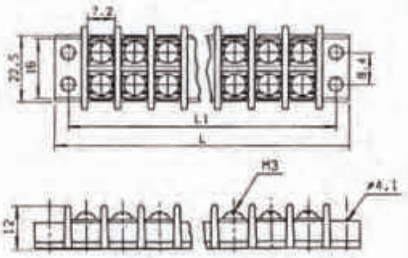


TB-10A



Poles	Price
3P 10A	40.-
4P 10A	53.-
6P 10A	81.-
8P 10A	110.-
10P 10A	135.-
12P 10A	160.-
14P 10A	190.-

Poles	Price
15P 10A	205.-
16P 10A	215.-
18P 10A	245.-
20P 10A	270.-
22P 10A	300.-
24P 10A	320.-
26P 10A	350.-



No. of poles	1	2	3	4	5	6	7	8	9	10	11	12	13
L1	19	28.5	38	47.5	57	66.5	76	85.5	95	104.5	114	123.5	133
L	26.2	35.7	45.2	54.7	64.2	73.7	83.2	92.7	102.2	111.7	121.2	130.7	140.2

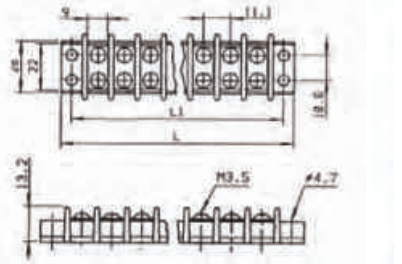
No. of poles	14	15	16	17	18	19	20	21	22	23	24	25	26
L1	142.5	152	161.5	171	180.5	190	199.5	209	218.5	228	237.5	247	256.5
L	149.7	159.2	168.7	176.2	187.7	197.2	206.7	216.2	225.7	235.2	244.7	254.2	263.7

TB-20A



Poles	Price
3P 20A	49.-
4P 20A	64.-
6P 20A	97.-
8P 20A	130.-
10P 20A	155.-
12P 20A	195.-
14P 20A	230.-

Poles	Price
16P 20A	260.-
18P 20A	295.-
20P 20A	320.-
22P 20A	355.-
24P 20A	385.-
26P 20A	420.-



No. of poles	1	2	3	4	5	6	7	8	9	10	11	12	13
L1	31.2	43.3	53.4	64.5	75.6	86.7	97.8	108.9	120	131.1	142.2	153.3	164.4
L	22.2	33.3	44.4	55.5	66.6	77.7	88.8	99.9	111	122.1	133.2	144.3	155.4

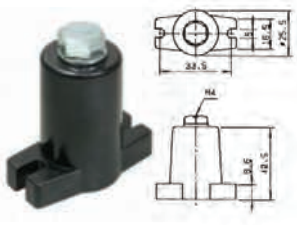
No. of poles	14	15	16	17	18	19	20	21	22	23	24	25	26
L1	175.5	186.6	197.7	208.8	219.9	231	242.1	253.2	264.3	275.4	286.5	297.6	308.7
L	166.5	177.6	188.7	199.8	210.9	222	233.1	244.2	255.3	266.4	277.5	288.6	299.7

TERMINAL แผงต่อสายขนาด15A

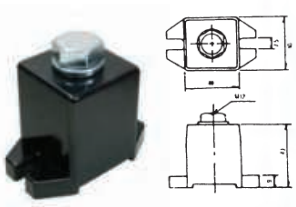


Type	Poles	Price/เส้น
TB-15-3	3P 15A	53.-
TB-15-4	4P 15A	66.-
TB-15-6	6P 15A	88.-
TB-15-12	12P 15A	120.-

T20 73.-



T40 130.-



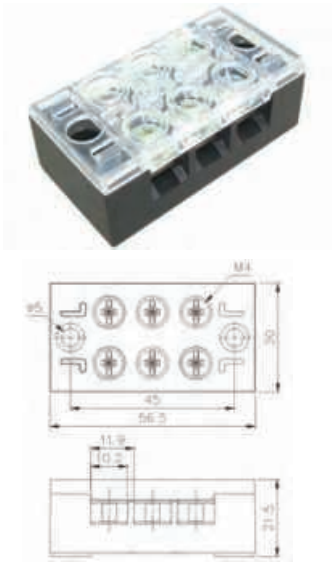
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend SOLID-TYPE TERMINAL BLOCK
แผงต่อสาย ชนิดโซลิด

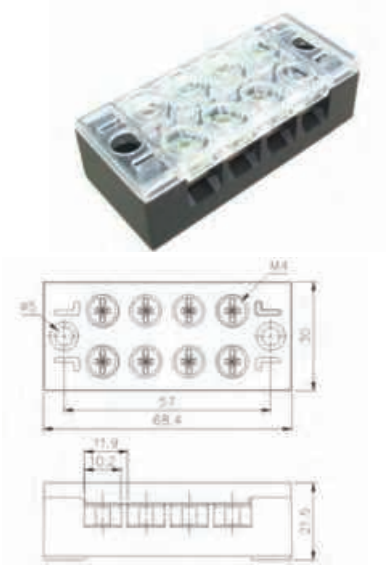
FEATURE

Glass reinforced plastic ensures heat-resistance, good toughness and no crack.

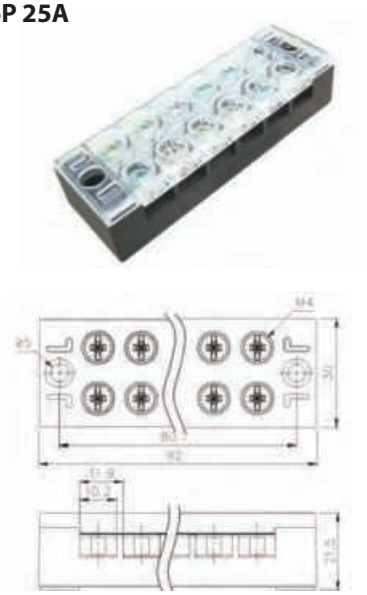
TB25-3N 3P 25A 50.-



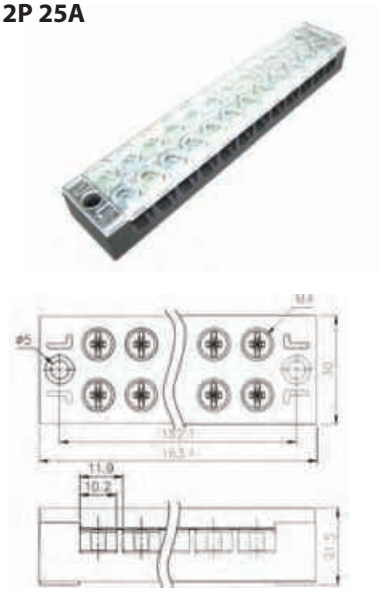
TB25-4N 4P 25A 61.-



TB25-6N 6P 25A 80.-



TB25-12N 12P 25A 115.-



tend CONTACTOR
คอนแทคเตอร์

CE

MODEL DESIGNATION

TC 11 A 2
1 2 3 4

Designation	Signal	Description	
1.Type	TC	Magnetic Contactor	
	TCR	Reversing Contactor	
2.Model	11	12A	(Rated Capacity Based on AC3 3 ph, 220 VAC)
	16	16A	
	21	24A	
	30	30A	
	35	35A	
	40	44A	
	50	58A	
	60	68A	
	80	100A	
3.Auxiliary contacts	(none)	1a1b,2a2b (For TC50-80)	
	A	1a	
	B	1b	

Designation	Signal	Description	
		50 Hz	60 Hz
4.Coil voltage	1	100 VAC	110 VAC
	2	200 VAC	220 VAC
	3	346 VAC	380 VAC
	4	380-400 VAC	440 VAC
	5	110 VAC	120 VAC
	6	240 VAC	260 VAC
	7	24 VAC	24 VAC
	8	48 VAC	48 VAC
	9	415 VAC	460 VAC
	a	220 VAC	240 VAC
	b	500 VAC	550 VAC
	c	32 VAC	32 VAC

RATING AND CHARACTERISTICS

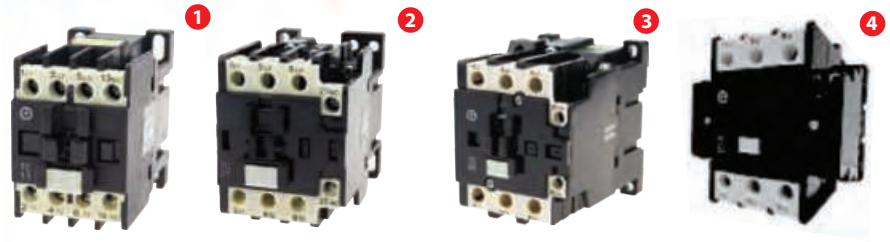
Type no.	Auxiliary contacts		Rated operating current (AC1) ith	IEC 60947 rated capacity (AC3)					Rated insulation voltage	Weight
				1 Phases		3 Phases				
				100V 120V	200V 220V	200V 220V	380V 440V	500V 550V		
	NO	NC	A	A/kw/hp	A/kw/hp	A/kw/hp	A/kw/hp	A/kw/hp	V	kg
TC11A	1	-	25	12 0.55 0.75	12 1.1 1.5	12 3 4	12 5.5 7.5	9 5.5 7.5	600	0.32
TC11B	-	1								
TCR11AB	1	1								0.66
TCR112A	2	-								
TCR112B	-	2								
TC16A	1	-	30	16 0.75 1	16 1.5 2	16 4 5.5	16 7.5 10	12 7.5 10	600	0.32
TC16B	-	1								
TCR16AB	1	1								0.66
TCR162A	2	-								
TCR162B	-	2								
TC21	1	1	40	24 1.1 1.5	24 2.2 3	24 5.5 7.5	24 11 15	18.4 11 15	600	0.39
TCR21	2	2								0.79
TC30	1	1	50	30 1.5 2	30 3 4	30 7.5 10	30 15 20	23 15 20	600	0.85
TCR30	2	2								1.72
TC35	1	1	50	35 1.8 2.5	35 4 5	35 9 12	35 15 20	28.5 18.5 25	600	0.85
TCR35	2	2								1.72
TC40	1	1	60	44 2.2 3	44 5.5 7.5	44 11 15	44 22 30	33 22 30	600	0.85
TCR40	2	2								1.72
TC50	2	2	80	58 3 4	58 5.5 7.5	58 15 20	52 30 40	41 30 40	600	1.21
TCR50	4	4								2.57
TC60	2	2	100	68 3.7 5	68 7.5 10	68 19 25	65 37 50	52 37 50	600	1.21
TCR60	4	4								2.57
TC80	2	2	130	-	-	100 25 35	90 50 70	72 50 70	600	1.43
TCR80	4	4								3.00

*Mechanical Service Life 5,000,000, Operations.
*For track mounting on DIN rail or panel mounting

*Electrical Service Life 1,000,000 Operations.
*UL Pending

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CONTACTOR
คอนแทคเตอร์



1. TC11/16
2. TC21
3. TC30/ 35/ 40
4. TC50/ 60/ 80

Type no.	Auxiliary contact		Rated operating current (Ac1) ith	Type no. Rated capacity (AC3) 3 Phases 200-220V			3 Phases 380-440V			Rated insulation voltage	Unit price
	NO	NC	A	A	kw	hp	A	kw	hp	V	Bath
TC11A	1	-	20	12	3	4	9	4	5.5	600	715.-
TC11B	-	1	20	12	3	4	9	4	5.5	600	715.-
TC16A	1	-	30	16	3.7	5	12	5.5	7.5	600	770.-
TC16B	-	1	30	16	3.7	5	12	5.5	7.5	600	770.-
TC21	1	1	40	24	5.5	7.5	21	11	15	600	1,360.-
TC30	1	1	50	30	7.5	10	27	15	20	600	1,940.-
TC35	1	1	60	35	9	12.5	33	18	25	600	2,260.-
TC40	1	1	65	44	11	15	40	22	30	600	2,420.-
TC50	2	2	80	58	15	20	52	30	40	600	2,935.-
TC60	2	2	100	68	19	25	65	37	50	600	3,705.-



1. TCR11/16
2. TCR21
3. TCR30/ 35/ 40
3. TCR50/ 60/ 80

Type no.	Auxiliary contact		Rated operating current (Ac1) ith	Type no. Rated capacity (AC3) 3 Phases 200-220V			3 Phases 380-440V			Rated insulation voltage	Unit price
	NO	NC	A	A	kw	hp	A	kw	hp	V	Bath
TCR112A	2	-	20	12	3	4	9	4	5.5	600	1,970.-
TCR112B	-	2	20	12	3	4	9	4	5.5	600	1,970.-
TCR162A	2	-	30	16	3.7	5	12	5.5	7.5	600	2,400.-
TCR162B	-	2	30	16	3.7	5	12	5.5	7.5	600	2,400.-
TCR21	2	2	40	24	5.5	7.5	21	11	15	600	3,235.-
TCR30	2	2	50	30	7.5	10	27	15	20	600	4,110.-
TCR35	2	2	60	35	9	12.5	33	18	25	600	4,935.-
TCR40	2	2	65	44	11	15	40	22	30	600	5,070.-
TCR50	4	4	80	58	15	20	52	30	40	600	6,360.-
TCR60	4	4	100	68	19	25	65	37	50	600	7,970.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

CONTACTOR AND CONTROL RELAY

คอนแทคเตอร์ และคอนโทรลรีเลย์

ISO 9002 CE

MODEL DESIGNATIONS

TA4 40 2
① ② ③

Designation	Signal	Description
1.Type	TA4	4P type Contactor for 4HP
	TB4	4P type Contactor for 5HP
	TR4	4P type Control relay
2.Contacts	40	4a
	31	3a1b
	22	2a2b

Designation	Signal	Description	
		50 Hz	60 Hz
3.Coil voltage	1	100 V AC	110 V AC
	2	200 V AC	220 V AC
	3	346 V AC	380 V AC
	4	380-400 V AC	440 V AC
	5	110 V AC	120 V AC
	6	240 V AC	260 V AC
	7	24 V AC	24 V AC
	8	48 V AC	48 V AC
	9	415 V AC	460 V AC
	a	220 V AC	240 V AC
	b	500 V AC	550 V AC
	c	32 V AC	32 V AC

RATING AND CHARACTERISTICS (CONTACTORS)

Type no.	contacts		Rated operating current (Ac1) Ith	Rated capacity (AC3)					Rated insulation voltage	Weight
				1 Phase		3 Phases				
				100V 120V	200V 220V	200V 220V	380V 440V	500V 550V		
	NO	NC	A	A/kw/hp	A/kw/hp	A/kw/hp	A/kw/hp	A/kw/hp	v	kg
TA440	4	-	25	12	12	12	12	9	600	0.32
TA431	3	1		0.55	1.1	3	5.5	5.5		
TA422	2	2		0.75	1.5	4	7.5	7.5		
TB440	4	-	30	16	16	16	16	12	600	0.32
TB431	3	1		0.75	1.5	4	7.5	7.5		
TB422	2	2		1	2	5.5	10	10		

RATING AND CHARACTERISTICS (CONTACTORS)

Type no.	contacts		Rated operating current (Ac1) Ith	Rated capacity (AC15)						Rated operating current Ith	Rated capacity (AC3)					Rated insulation voltage	Weight
				120 V	240 V	380 V	480 V	500 V	600 V		125 V	250 V	400 V	500 V	600 V		
	NO	NC	A	A	A	A	A	A	A	A	A	A	A	A	A	v	kg
TR440	4	-	10	6	3	1.9	1.5	1.4	1.2	5	1.1	0.55	0.31	0.27	0.2	600	0.32
TR431	3	1															
TR422	2	2															

DIMENSIONS

Type no.	Description	Price
TA4	4P TYPE CONTACT FOR 4HP	-
TB4	4P TYPE CONTACT FOR 5HP	-
TR4	4P TYPE CONTROL RELAY	-



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MAGNETIC SWITCH
แมกเนติกสวิตช์

ISO 9002

USER'S INSTRUCTION

ATTENTION :

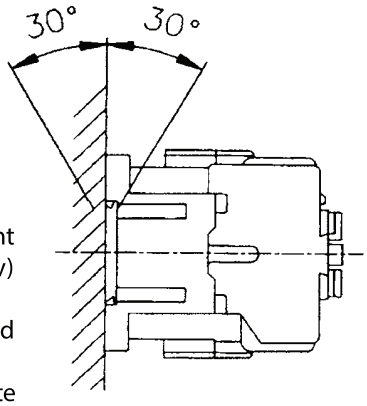
- Turn off power before carrying out any maintenance.
- Please handle carefully and avoid abnormal vibration and shock
- The dust-proof lable on the side of frame must be tear off clearly, if side-mounted auxiliary contact block or mechanical interlock is used.
- To dismantle the magnetic contactors which is mounted by DIN 35mm rail, right " _ " screw driver shall be applied and handled in running direction.
- A minimum clearance of 8mm and a minimum creepage distance of 12mm has to be ensured by the installation.

1. Service environment :

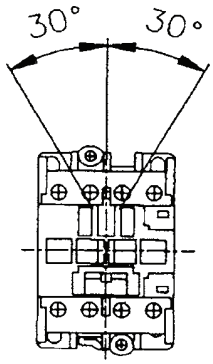
1.1 Operational Temperature : -20°C - 50°C
1.2 Storage Temperature : - 40°C - 70°C
1.3 Ralative Humidity : 45% - 85%
1.4 Altitude : below 2000 m.

2. Installation and wiring :

2.1 Ensure that the specifications (Rated power, arrangement of auxiliary contact, rated coil voltage and frequency) meet the requirements.
2.2 Mounting positions shall be within the ranges specified below.
2.3 Select appropriate conductor and tighten with appropriate torque with right tool.
2.4 Tightening torques for contactors are given below:



VERTICAL



VERTICAL

Type	Item	Screw/blot	Tighting torque (kgf.cm)
TC11	Main terminal	M3.5	8-12
TC16	Main terminal	M3.5	8-12
TC21	Main terminal	M4	12-20
TC30/35/40	Main terminal	M5	20-25
TC50/60	Main terminal	M6	35-40
All series	Auxi contact & coil terminal	M3.5	8-12

*Tightening torque shall be within the values given above to avoid deteriorating the screws.

3. Maintenance :

3.1 Turn off power before conducting any maintenance.
3.2 Disconnect the wires in sequence.
3.3 Dismantle contactor as required for maintenance.
3.4 Assemble and connect the contactor in reverse procedures conducted in step 3.3 and 3.2
3.5 Check the contactor in a good condition.

4. Replacement of the coil :

Follow the instructions if replacement of the coil is carried out.
4.1 Dismantle the contactor in appropriate means.
4.2 Replace the coil to requested coil.
4.3 Assemble the contactor in a reverse sequence conducted in step 4.1
4.4 Check that the contactor can be operated normally.

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tend MAGNETIC SWITCH
แมกเนติกสวิตช์

ISO 9002

MODEL DESIGNATIONS

TMS	11	A	2	2
1	2	3	4	5

Designation	Signal	Description	
1.Type	TMS	Open Type	
	TMR	Reversing Type	
	TES	Enclosed Type	
	TEB	Enclosed Type With pushbutton	
	TEL	Enclosed Type With indicator	
	TEW	Enclosed Type With rainproof (IEC144 IP 65)	
2.Model	11	12A	(Rated Capacity Based on AC3 3ph, 220 V AC)
	16	16A	
	21	24A	
	30	30A	
	35	35A	
	40	44A	
	50	58A	
	60	68A	
3.Auxiliary contacts	(none)	1a1b, 2a2b (For TMS50, 60)	
	A	1a	
	B	1b	

Designation	Signal	Description	
		50 Hz	60 Hz
4.Coil voltage	1	100V AC	110V AC
	2	200 V AC	220 V AC
	3	346V AC	380V AC
	4	380-400 V AC	440 V AC
	5	110 V AC	120 V AC
	6	240 V AC	260 V AC
	7	24 V AC	24 V AC
	8	48 V AC	48 V AC
	9	415 V AC	460 V AC
	a	220 V AC	240 V AC
	b	500 V AC	550 V AC
	c	32 V AC	32 V AC
5.Number of heaters	2	2 Heaters	
	3	3 Heaters	
	P	Phase-Failure (3 Heaters)	

RATING AND CHARACTERISTICS

Type no.	Auxiliary contact		Rated operating current (Ac1) Ith	ICE 60947 rated capacity (AC3)					Rated insulation voltage	Weight
				3 Phases 200-220V		3 Phases 380-440V				
				100V	200V	200V	380V	500V		
				120V	220V	220V	440V	550V		
	NO	NC	A	A/kw/hp	A/kw/hp	A/kw/hp	A/kw/hp	A/kw/hp	v	kg
TMS11A	1	-	25	12 0.55 0.75	12 1.1 1.5	12 3 4	12 5.5 7.5	9 5.5 7.5	600	0.43 0.88
TMS11B	-	1								
TMR11AB	1	1								
TMR112A	2	-								
TMR112B	-	2								
TMS16A	1	-	30	16 0.75 1	16 1.5 2	16 4 5.5	16 7.5 10	12 7.5 10	600	0.43 0.88
TMS16B	-	1								
TMR16AB	1	1								
TMR162A	2	-								
TMR162B	-	2								
TMS21	1	1	40	24 1.1 1.5	24 2.2 3	24 5.5 7.5	24 11 15	18.4 11 15	600	0.51
TMR21	2	2								1.04
TMS30	1	1	50	30 1.5 2	30 3 4	30 7.5 10	30 15 20	23 15 20	600	1.03
TMR30	2	2								2.08
TMS35	1	1	50	35 1.8 2.5	35 4 5	35 9 12	35 15 20	28.5 18.5 25	600	1.03
TMR35	2	2								2.08
TMS40	1	1	60	44 2.2 3	44 5.5 7.5	44 11 15	44 22 30	33 22 30	600	1.03
TMR40	2	2								2.08
TMS50	2	2	80	58 3 4	58 5.5 7.5	58 15 20	52 30 40	41 30 40	600	1.55
TMR50	4	4								2.76
TMS60	2	2	100	68 3.7 5	68 7.5 10	68 19 25	65 37 50	52 37 50	600	1.55
TMR60	4	4								2.76

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tend MAGNETIC SWITCH
แมกเนติกสวิตช์

ISO 9002


1


2


3

1 TMS11/16
2 TMS21
3 TMS30/ 35/ 40
3 TMS50/ 60/ 80

Type no.	Auxiliary contacts		Rated operating current (Ac1) Ith	Rated capacity (AC3)						Overload range	Price	
				3 Phases 200-220V			3 Phases 380-440V					
	NO	NC	A	A	kw	hp	A	kw	hp	A	2 Heater elements	3 Heater elements
TMS11A	1	-	20	12	3	4	9	4	5.5	0.1-0.15, 0.15-0.24 0.24-0.36, 0.36-0.54 0.48-0.72, 0.64-0.96	1,320.-	1,500.-
TMS11B	-	1	20	12	3	4	9	4	5.5	0.8-1.2, 0.95-1.45	1,320.-	1,500.-
TMS16A	1	-	30	16	3.7	5	12	5.5	7.5	1.4-2.2, 1.7-2.6, 4-6	1,480.-	1,645.-
TMS16B	-	1	30	16	3.7	5	12	5.5	7.5	5-8, 6-9.7, 11.9-13, 12-18	1,480.-	1,645.-
TMS21	1	1	40	24	5.5	7.5	21	11	15	1.4-2.2, 1.7-2.6, 2.2-3.4, 2.8-4.2, 4-6, 5-8, 6-9, 7-11, 9-13, 12-18, 16-22, 20-26	2,155.-	2,260.-
TMS30	1	1	50	30	7.5	10	27	15	20	7-11, 9-13, 12-18, 16-22, 20-26, 22-34, 28-38, 32-48	-	-
TMS35	1	1	60	35	9	12.5	33	18	25		3,270.-	3,410.-
TMS40	1	1	65	44	11	15	40	22	30		3,430.-	3,565.-
TMS50	2	2	80	58	15	20	52	30	40	16-22, 20-26, 22-34, 28-38, 32-48, 43-65, 54-80	4,705.-	4,890.-
TMS60	2	2	100	68	19	25	65	37	50		5,510.-	5,700.-

REVERSING MAGNETIC SWITCH


1


2


3

1 TMR11/16
2 TMR21
3 TMR30/ 35/ 40
3 TMR50/ 60/ 80

Type no.	Auxiliary contacts		Rated operating current (Ac1) Ith	Rated capacity (AC3)						Overload range	Price	
				3 Phases 200-220V			3 Phases 380-440V					
	NO	NC	A	A	kw	hp	A	kw	hp	A	2 Heater elements	3 Heater elements
TMR11	1	1	20	12	3	4	9	4	5.5	0.1-0.15, 0.15-0.24 0.24-0.36, 0.36-0.54 0.48-0.72, 0.64-0.96, 0.8-1.2, 0.95-1.45, 1.4-2.2, 1.7-2.6, 4-6, 5-8, 6-9.7, 11.9-13, 12-18	2,570.-	2,595.-
TMR112A	2	-	20	12	3	4	9	4	5.5		2,570.-	2,595.-
TMR112B	-	2	20	12	3	4	9	4	5.5		2,570.-	2,595.-
TMR16	1	1	30	16	3.7	5	12	5.5	7.5		2,880.-	2,880.-
TMR162A	2	-	30	16	3.7	5	12	5.5	7.5		2,880.-	2,725.-
TMR162B	-	2	30	16	3.7	5	12	5.5	7.5		2,880.-	2,725.-
TMR21	2	2	40	24	5.5	7.5	21	11	15	1.4-2.2, 1.7-2.6, 2.2-3.4, 2.8-4.2, 4-6, 5-8, 6-9, 7-11, 9-13, 12-18	3,745.-	3,805.-
TMR30	2	2	50	30	7.5	10	27	15	20	7-11, 9-13, 12-18, 16-22, 20-26, 22-34, 28-38, 32-48	4,800.-	4,820.-
TMR35	2	2	60	35	9	12.5	33	18	25		5,280.-	5,415.-
TMR40	2	2	65	44	11	15	40	22	30		6,150.-	6,330.-
TMR50	4	4	80	58	15	20	52	30	40	16-22, 20-26, 22-34, 28-38, 32-48, 43-65, 54-80	7,340.-	7,500.-
TMR60	4	4	100	68	19	25	65	37	50		8,810.-	8,990.-

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tend MAGNETIC SWITCH
แมกเนติกสวิตช์

ISO 9002

ENCLOSED TYPE



TES 11/ 16



TES 21

Type no.	Rated capacity (AC3)						Price	
	1 Phase 220V			3 Phase 380V				
	A	kw	hp	A	kw	hp	2 Heater elements	3 Heater elements
TES11	11	1.1	1.5	9	4	5.5	1,600.-	1,670.-
TES16	14	1.5	2	12	5.5	7.5	1,850.-	2,030.-
TES21	20	2.2	3	21	11	15	2,395.-	2,520.-

ENCLOSED TYPE WITH PUSH BUTTON SWITCH



TEB 11/ 16



TEB 21

Type no.	Rated capacity (AC3)						Price	
	1 Phase 220V			3 Phase 380V				
	A	kw	hp	A	kw	hp	2 Heater elements	3 Heater elements
TEB11	11	1.1	1.5	9	4	5.5	1,680.-	1,850.-
TEB16	14	1.5	2	12	5.5	7.5	2,000.-	2,175.-
TEB21	20	2.2	3	21	11	15	2,730.-	2,740.-

ENCLOSED TYPE WITH PUSH BUTTON SWITCH AND INDICATOR LAMP



TEL 11/ 16



TEL 21

Type no.	Rated capacity (AC3)						Price	
	1 Phase 220V			3 Phase 380V				
	A	kw	hp	A	kw	hp	2 Heater elements	3 Heater elements
TEL11	11	1.1	1.5	9	4	5.5	1,875.-	2,050.-
TEL16	14	1.5	2	12	5.5	7.5	2,175.-	2,355.-
TEL21	20	2.2	3	21	11	15	2,760.-	2,885.-

ENCLOSED TYPE WITH PUSH BUTTON SWITCH AND INDICATOR LAMP (RAIN PROOF) กันน้ำ



TEW 11/ 16/ 21

Type no.	Rated capacity (AC3)						Price	
	1 Phase 220V			3 Phase 380V				
	A	kw	hp	A	kw	hp	2 Heater elements	3 Heater elements
TEW11	11	1.1	1.5	9	4	5.5	2,200.-	2,365.-
TEW16	14	1.5	2	12	5.5	7.5	2,420.-	2,595.-
TEW21	20	2.2	3	21	11	15	3,065.-	3,190.-

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tend THERMAL OVERLOAD RELAY
โอเวอร์โหลดรีเลย์

ISO 9002

TA4 40 2

MODEL DESIGNATIONS

THR 1 3 - 3.6
(1) (2) (3) (4)

Designation	Signal	Description
1.Type	THR	Overload Protection
	THP	Phase Failure Protection
2.Contacts	1	for TC11 &TC16
	2	for TC21
	3	for TC30/35 & 40
	4	for TC50&TC60
3.Number of heaters	2	2 Heater Elements
	3	3 Heater Elements
4.Heater setting range (A)	0.12	0.1 - 0.12 - 0.15
	0.2	0.16 - 0.2 - 0.24
	0.3	0.24 - 0.3 - 0.36
	0.44	0.36 - 0.44 - 0.54
	0.6	0.48 - 0.6 - 0.72
	0.8	0.64 - 0.8 - 0.96
	1	0.8 - 1 - 1.2
	1.2	0.95 - 1.2 - 1.45

Designation	Signal	Description
4.Heater setting range (A)	1.8	1.4 - 1.8 - 2.2
	2.1	1.7 - 2.1 - 2.6
	2.8	2.2 - 2.8 - 3.4
	3.6	2.8 - 3.6 - 4.2
	5	4 - 5 - 6
	6.5	5 - 6.5 - 8
	7.5	6 - 7.5 - 9
	9	7 - 9 - 11
	11	9 - 11 - 13
	15	12 - 15 - 18
	19	16 - 19 - 22
	23	20 - 23 - 26
	28	22 - 28 - 34
	33	28 - 33 - 38
	40	32 - 40 - 48
	54	43 - 54 - 65
	67	54 - 67 - 80

THR1/ THP1



สำหรับรุ่น TC11 และ TC16

Type no.	Description	For contactor	Setting range (A)	Price
THR-12	2 Heater Elements	TC11, TC16	0.1-0.15, 0.15-0.24, 0.24-0.36, 0.36-0.54, 0.48-0.72, 0.64-0.96, 1.4-2.2, 1.7-2.6, 2.2-3.4, 2.8-4.2, 4-6, 5-8, 6-9, 7-11, 9-13, 12-18	605.-
THR-13	3 Heater Elements			740.-
THP-1	Phase Failure Protecion			780.-

THR2/ THP2



สำหรับรุ่น TC21

Type no.	Description	For contactor	Setting range (A)	Price
THR-22	2 Heater Elements	TC21	1.4-2.2, 1.7-2.6, 2.2-3.4, 2.8-4.2, 4-6, 5-8, 6-9, 7-11, 16-22, 20-26	735.-
THR-23	3 Heater Elements			840.-
THP-2	Phase Failure Protecion			865.-

THR3/ THP3



สำหรับรุ่น TC30, TC35, TC40

Type no.	Description	For contactor	Setting range (A)	Price
THR-32	2 Heater Elements	TC30, TC35, TC40	7-11, 9-13, 12-18, 16-22, 20-26, 22-34, 28-38, 32-48	980.-
THR-33	3 Heater Elements			1,105.-
THP-3	Phase Failure Protecion			1,105.-

THR4/ THP4



สำหรับรุ่น TC50, TC60

Type no.	Description	For contactor	Setting range (A)	Price
THR-42	2 Heater Elements	TC50, TC60,	16-22, 20-26, 22-34, 28-38, 32-48, 43-65, 54-80	1,580.-
THR-43	3 Heater Elements			1,760.-
THP-4	Phase Failure Protecion			1,760.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

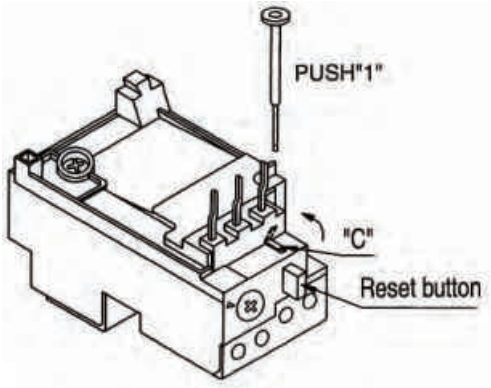
tend THERMAL OVERLOAD RELAY

โอเวอร์โหลดรีเลย์

ISO 9002

THR (THP)

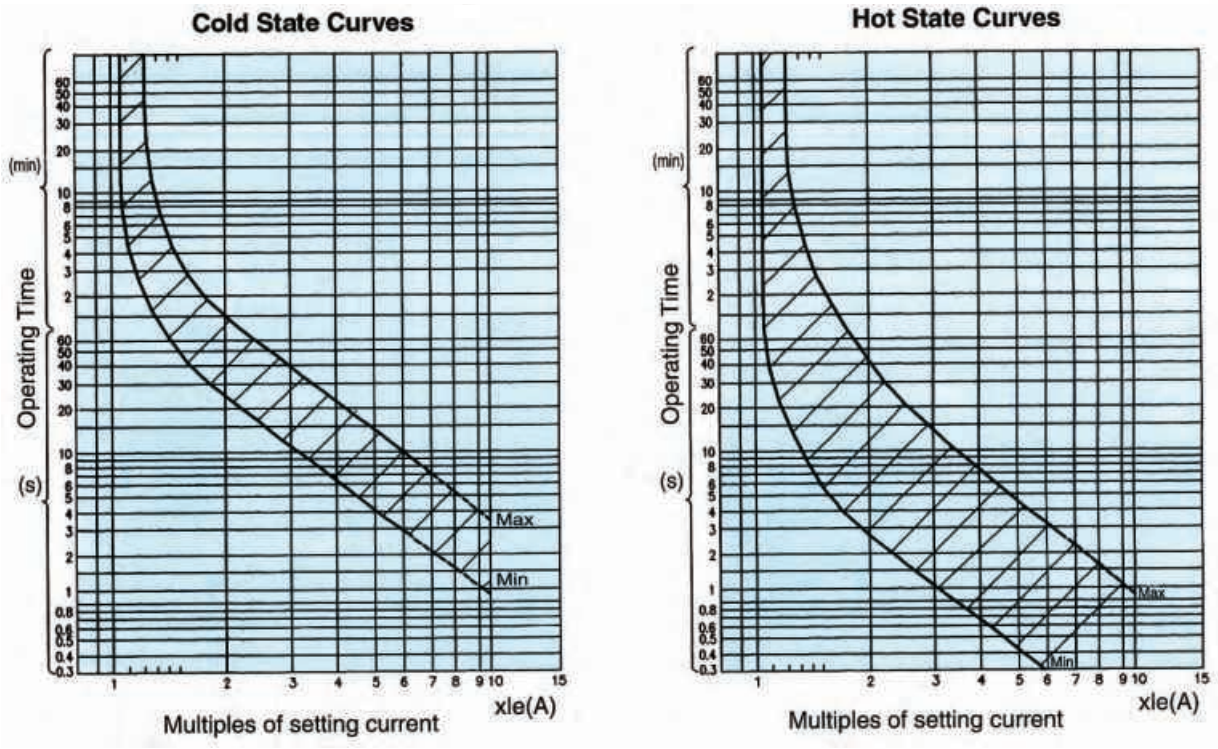




Manual reset :
Press reset button to reset the Thermal Overload Relay

Auto reset :
Take off "C"
Then press reset button and push "1" (fiat screw driver) to lock the button to become autoreset.

OPERATING CHARACTERISTICS OF THERMAL OVERLOAD RELAYS



STAR-DELTA STARTER SELECTION TABLE

Type		Y-TC21	Y-TC35	Y-TC50	Y-TC60
Motor output KW (HP)	200-220 V	11 (15)	19 (25)	22 (30)	30 (40)
	380 V	19 (25)	30 (40)	45 (60)	55 (75)
	440 V	19 (25)	30 (40)	45 (60)	55 (75)
Contactor used	MC M	TC21	TC35	TC50	TC60
	MC D	TC21	TC35	TC50	TC60
	MC S	TC11	TC16	TC21	TC21

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tend ACCESSORIES
อุปกรณ์เสริม

ISO 9002 TÜV DVE CE

AUXILIARY CONTACT BLOCKS (FRONT MOUNTED)



Type no.	NO	NC	Weight	Suitable for	Price
TCF-211	1	1	0.034	TC11 - TC80	220.-
TCF-220	2	-			
TCF-202	-	2			
TCF-440	4	-	0.034	TC11 - TC80	360.-
TCF-431	3	1			
TCF-422	2	2			
TCF-413	1	3			
TCF-404	-	4			

AUXILIARY CONTACT BLOCKS (FRONT MOUNTED)



Type no.	NO	NC	Weight	Suitable for	Price
TCS-111	1	1	0.034	TC11 - TC80	210.-
TCS-120	2	-			
TCS-102	-	2			
TCS-221	1	1	0.034	TC21	210.-
TCS-220	2	-			
TCS-202	-	2			

MECHANICAL INTERLOCK



Type no.	NO	NC	Suitable for	Price
*TCL-1	-	2	TC11-TC21	225.-
TCL-1N	-	-	TC-11-TC21	185.-
*TCL-3	-	2	TC30-TC40	225.-
TCL-3N	-	-	TC30-TC40	185.-
*TCL-4	-	2	TC50-TC80	225.-
TCL-4N	-	-	TC50-TC80	185.-

* : with electrical interlock

tend ACCESSORIES
อุปกรณ์เสริม

ISO 9002 TÜV DVE CE

Type no.	Rated operating current (Ac1) Ith	Rated capacity (AC15)						Rated operating current Ith	Rated capacity (DC13)					Rated insulation voltage	Weight
		120 V AC	240 V AC	380 V AC	480 V AC	500 V AC	600 V AC		125 V AC	250 V AC	400 V AC	500 V AC	600 V AC		
	A	A	A	A	A	A	A	A	A	A	A	A	A	v	kg
TCF-2	10	6	3	1.9	1.5	1.4	1.2	5	1.1	0.55	0.31	0.27	0.2	600	0.034
TCF-4															0.054
TCS-1(2)															0.034
TCS-3															0.040
TCL															0.036

SPARE COIL



Spare coil	Suitable for	Price
TCC-11	TC11-21	355.-



Spare coil	Suitable for	Price
TCC-30	TC30-40	590.-



Spare coil	Suitable for	Price
TCC-50	TC50-480	645.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend SOLID STATE RELAY
โซลิดสเตตรีเลย์

A009142

FEATURES

- Wide load voltage range : 24~380 VAC & 90~480VAC
- Load current : 10, 25 and 40 amperes.
- Long service life and high reliability.
- LED indicates the operating of the device. (Except phase controller)
- Low EMI/RFI & surge by zero-cross trigger.
- DC type can be driven by IC such as TTL&CMOS.



MODEL DESIGNATIONS

TSSR 25 D H
① ② ③

Designation	Signal	Description
1.Load current	10	10A
	25	25A
	40	40A
2.Input type	A	AC input
	D	DC input
	V	Phase trigger control
3.Output voltage range	-	24-380 V AC
	H	90-480 V AC

Phase controller only has 48~380VAC for output voltage range.

SPECIFICATIONS : AC INPUT

Input characteristics

Input characteristics \ Model	TSSR-10A	TSSR-25A	TSSR-40A	TSSR-10AH	TSSR-25AH	TSSR-40AH
	770.-	945.-	1,430.-	805.-	1,040.-	1,430.-
Control voltage range	90~250 V AC 50/60 Hz					
Control current	3mA Max.					
Pickup voltage	AC 70V					
Dropout voltage	AC 30V					

Output characteristics

Voltage range	24~380 VAC			90~480 VAC		
Peak voltage (t=1min)	600 V AC (reference)					
Maximum current (rms)	10A	25A	40A	10A	25A	40A
Maximum surge current (t=10ms)	100A	250A	400A	100A	250A	400A

General characteristics (@ 25°C)

Operate time	1/2 of load power source cycle + 1 ms max.	
Release time	1/2 of load power source cycle + 1 ms max.	
Output ON voltage drop	1.6 V (rms) max.	
Leakage current	4 mA max. (at V max.)	8 mA max. (at V max.)
Insulation resistance	100 MΩmin. (at 500 V DC)	
Dielectric strength	2,500 VAC, 50/60Hz for 1 minute	
Vibration resistance	Mechanical durability : 10 to 55Hz, 1.5 mm double amplitude	
Shock resistance	Mechanical durability : 1,000 m/s (approx. 100G)	
Storage temperature	-30° C to 100° C (with no icing nor condensation)	
Ambient temperature	-20° C to 80° C (with no icing nor condensation)	
Ambient humidity	45 to 85% RH	
Weight	Approx. 80g	

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend SOLID STATE RELAY
โซลิดสเตตรีเลย์

CE A009142

SPECIFICAIONS : DC INPUT

Input characteristics

Characteristics / Model	TSSR-10D	TSSR-25D	TSSR-40D	TSSR-10DH	TSSR-25DH	TSSR-40DH
Price	685.-	840.-	1,310.-	745.-	920.-	1,310.-
Control voltage range	3~32V DC					
Control current	6mA / 12V DC					
Pickup voltage	DC 3V max.					
Dropout voltage	DC 2V max.					

Output characteristics

Voltage range	24~380 V AC			90~480 V AC		
Peak voltage (t = 1 min)	600 V AC (reference)					
Maximum current (rms)	10A	25A	40A	10A	25A	40A
Maximum surge current (t = 10 ms)	100A	250A	400A	100A	250A	400A

General characteristics (@ 25°C)

Operating time	1/2 of load power source cycle + 1 ms max	
Release time	1/2 of load power source cycle + 1 ms max	
Output ON voltage drop	1.6 V (rms) max.	
Leakage current	4 mA max. (at V max.)	8 mA max. (at V max.)
Insulation resistance	100 MΩ min. (at 500 V DC)	
Dielectric strength	2,500 V AC, 50/60 Hz for 1 minute	
Vibration resistance	Mechanical durability : 10 to 55 Hz, 1.5 mm double amplitude	
Shock resistance	Mechanical durability : 1,000 m/s ^{2} (approx. 100G)	
Storange temperature	-30°C to 100°C (with no icing nor condensation)	
Ambient temperature	-20°C to 80°C (with no icing nor condensation)	
Ambient humidity	45 to 85% RH	
Weight	Approx. 80g.	

SPECIFICATIONS : PHASE CONTROLLER

Input characteristics

Characteristics/ Model	TSSR-10V	TSSR-25V	TSSR-40V
Variable resistor range	100kΩ to 48V, 250kΩ to 110V 500kΩ to 220V, 1MΩ to 380V		
Control method	Phase trigger control		
Price	640.-	730.-	1,070.-

Output characteristics

Voltage range	24~380 V AC		
Peak voltage (t = 1 min)	600 V AC (reference)		
Maximum current (rms)	10A	25A	40A
Maximum surge current (t = 10 ms)	100A	250A	400A
Price	640.-	730.-	1,070.-

General characteristics (@ 25 ℃)

Output ON voltage drop	1.6V (rms) max.
Leakage current	10 mA max. (at V max.)
Dielectric strength	2,500 V AC, 50/60 Hz for 1 minute
Vibration resistance	Mechanical durability : 10 to 55 Hz, 1.5 mm double amplitude
Shock resistance	Mechanical durability : 1,000 m/s ^{2} (approx. 100G)
Storage temperature	-30°C to 100°C (with no icing nor condensation)
Ambient temperature	-20°C to 80°C (with no icing nor condensation)
Ambient humidity	45 to 85% RH
Weight	Approx. 80g.

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

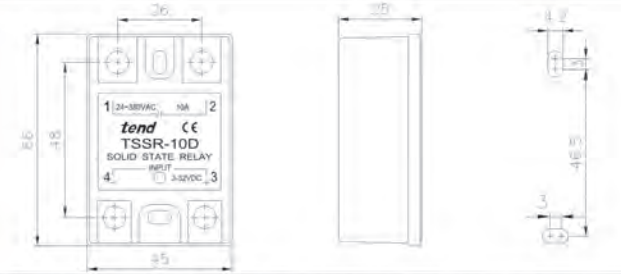
tend SOLID STATE RELAY
โซลิดสเตตรีเลย์

CE A009142

DIMENSION

TSSR - □□□

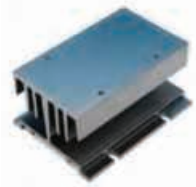


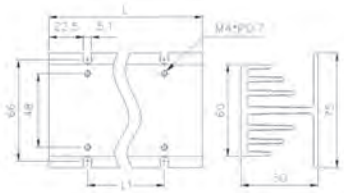


ACCESORIES

There are 5 different lengths of heat sink avaolable.It can be chosen based on the queatity of TSSR used.Put the number of TSSR used in the □ sush as TSSR01- 1P

TSSR01 - □
HEAT SINK ชุดระบายความร้อน

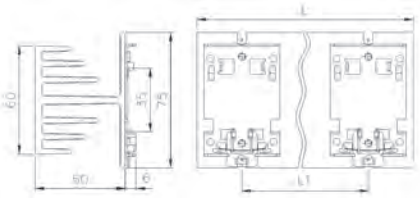




Signal	L	L1	Price
1P	50 mm		260.-
2P	100 mm	50 mm	515.-
3P	150 mm	100 mm	785.-
4P	200 mm	150 mm	1,025.-
5P	250 mm	200 mm	1,310.-

TSSR02 - □
DIN RAIL MOUNTED HEAT SINK ชุดระบายความร้อนชนิดใช้กับราง





Signal	L	L1	Price
1P	50 mm		320.-
2P	100 mm	50 mm	645.-
3P	150 mm	100 mm	980.-
4P	200 mm	150 mm	1,310.-
5P	250 mm	200 mm	1,610.-

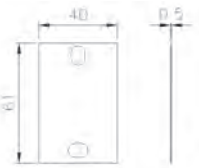
TSSR03 **70.-**
DIN RAIL MOUNTED





TSSR04 **35.-**
HEAT CONDUCTION RUBBER





- Used between bottom of TSSR and heat sink.
- Tear off protection film before using.

PRECAUTIONS FOR SAFE USE

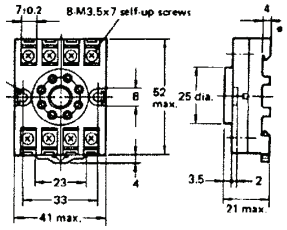
1.The TSSR and heat sink will be hot and may occasionally cause minor burns.Do not touch the TSSR or heat sink either while the power supply is ON, or immediately after the power is turned OFF.
2.Be sure to conduct wiring with the power supply turned OFF.Touching the terminals when they are charged may occasionally result in monor electric shock.
3.The internal snubber circuit is charged and may occasionally cause minor electric shock.Do not touch the TSSR's main circuit terminals immediately afterthe power is turned OFF.
4.Do not apply a short-circuit to the load side of the TSSR.The TSSR may rupture.
5.TSSR malfunction or fire damage may occasionally occur.Do not apply excessive voltage or current to the TSSR terminals.
6.To protect against short-circuit accidents, install a quick-burning fuse that is rated 80% current maximum on the output line.
7.Abnormal heat generated by terminals may occasionally result in fire damage.Do not operate if the screws on the output terminal are loose.
8.Do not obstruct the air flow to the TSSR or heat sink.
9.When installing the TSSR directly into a control panel so that the panel can be used as a heat sink, use a panel material with low thermal resistance, sush as aluminum or steel.
10.The TSSR should be installed with a heat sink when the load current is more than 15A.Heat generated from a TSSR error may occasionally cause the output element to short, or cause fire damage.

tend RELAY SOCKET
ซ็อกเก็ตรีเลย์

ISO 9002

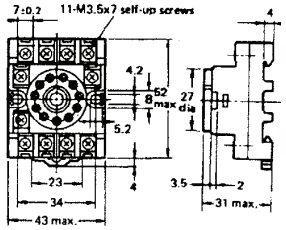
PF-083N ใช้กับรีเลย์ **92.-**
MK-2P





PF-113N ใช้กับรีเลย์ **115.-**
MK-3P



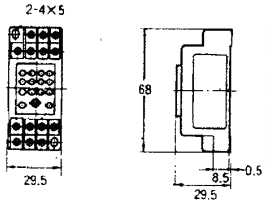


PTF-14N ใช้กับรีเลย์ **255.-**
PTF-14A ใช้กับรีเลย์ **165.-**
LY-4P



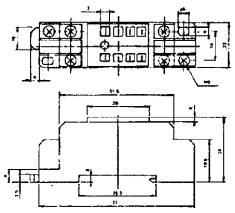
PYF-14N ใช้กับรีเลย์ **130.-**
MY-4





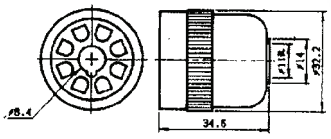
PYF-08N ใช้กับรีเลย์ **104.-**
MY-2





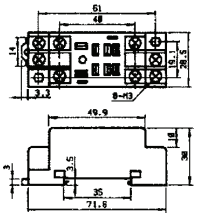
US-08 TIMER SOCKET **100.-**





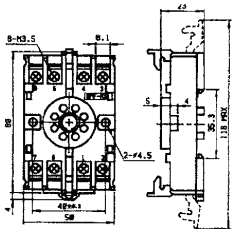
PTF-08N / PTF-08A ใช้กับรีเลย์ **165.-**
LY-2





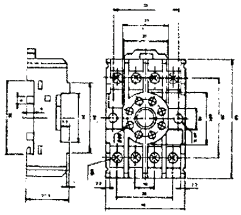
8PF-R TIMER SOCKET **145.-**





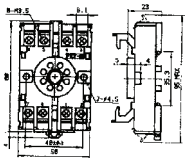
PF-085A **104.-**
TIMER SOCKET





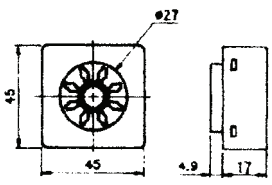
P2CF-08 TIMER SOCKET **145.-**





P3G-08 ใช้กับ Timer **115.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

CAM SWITCH

แคมสวิตช์

48x48 / 48x60 / 64x64 / 64x80

FEATURES



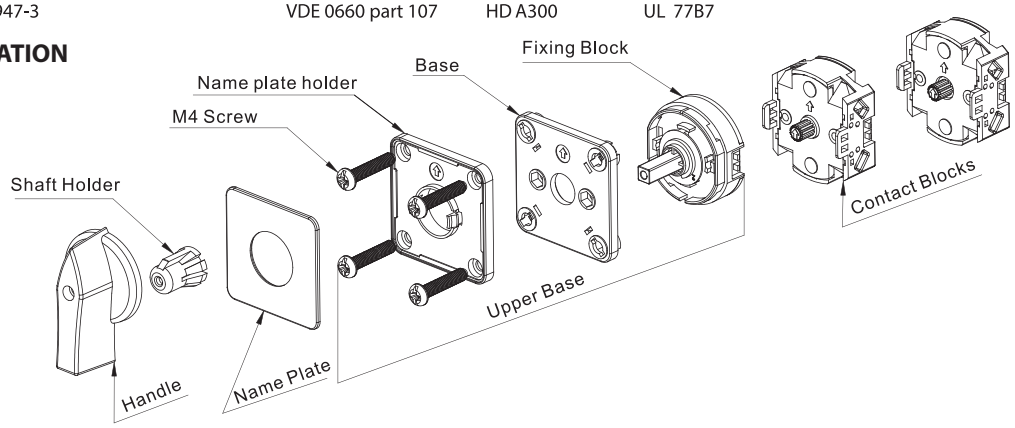
- Diversified operating ways, handles and plates.
- Unique modular design of contact blocks keeps internal parts from falling apart when contact blocks are disassembled or replaced.
- Can assemble or disassemble contact blocks to suit for various models yet without risking excessive stock.
- Contact blocks can be added click-on-easily, no need to unscrew.
- Connecting screws are fatened from the back rather than normally from the side. It makes wiring easier.
- A special design to keep connecting terminals and screws in the contact blocks can prevent users from electric shocking
- All the connecting pieces of terminals are covered to avoid electric shocking.
- Capacities are differentiaed by colors of contact blocks: blue for 10A : gray for 16A and black for 25A.

SPECIFICATIONS

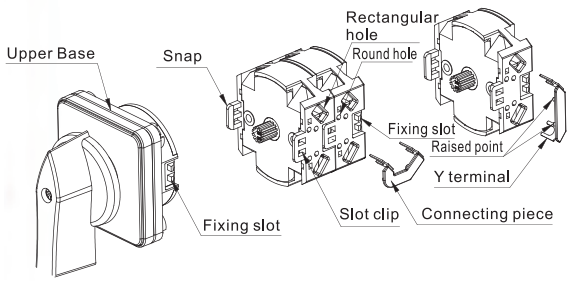
Capacity / Voltage	AC-3 (kw) 3 ph.	AC-3 (kw) 1 ph.	AC-23A (kw) 3 ph.	AC-23A (kw) 1 ph.	AC-21A Iu=Ith	Rated Voltage	AC-3 (HP) 3 ph.	AC-3 (HP) 1 ph.	Motor load
220V-240V	1.5	0.55	1.8	0.75	10A	120V	0.75	0.33	10A
380V-440V	2.2	0.75	3	1.1		240V	1	0.75	
660V-690V	2.2	0.75	3	1.1					
220V-240V	3	1.5	4	2.2	16A	120V	1.5	0.5	16A
380V-440V	5.5	2.2	7	3		240V	3	1.5	
660V-690V	5.5	2.2	7	3					
220V-240V	4	3	5.5	3	25A	120V	3	1.5	25A
380V-440V	7.5	3.7	11	5.5		240V	7.5	3	
660V-690V	7.5	3.7	11	5.5		480V	10	5	

IEC 60947-3, EN 60947-3 VDE 0660 part 107 HD A300 UL 77B7

CONFIGURATION



FOR PANEL SERIES NO.48 AND NO.64, THE HANDLES, ENGRAVING PLATES, UPPER BASES AND CONTACTS CAN BE DISASSEMBLED BY DIY



- Assembly and disassembly of upper base and contact or those of two contacts.
- Assembly between upper base and contact block : point and push the raised part of the upper base into the hole of contact block.
- Assembly between contact block : point and push the raised part of the contact block into the hole of another contact block.
- Disassembly: lift the raised part of contact with "-" shape screwdriver.
- Assembly of connecting piece : insert the "Y" shape terminal of the connecting piece into the ractangular holes flanking the contact and press the raised point of connecting piece down into the round hole of contact block.

tend CAM SWITCH

แคมสวิตช์

48x48 / 64x64

Before placing an order for finished products, please refer to the explanation of model numbers shown in this page.

MODEL DESIGNATION

TCS 4 S 242 - 2 2209 R

① ② ③ ④ ⑤ ⑥

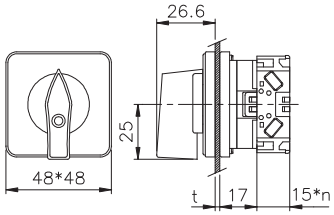
Designation	Signal	Description
1.Size	4	48 x 48
	6	64 x 64
2.Handle	S	Short handle
	L	Long handle
	O	Octagonal handle

Designation	Signal	Description
3.Position turn angle plate number	240-842	See Page 174
4.Capacity	1	10 A
	2	16 A
	3	25 A
5.Wiring diagram number		See Page 173 - 184
6.Operation	None	Hold
	R	Spring return (45°, 2 Position, 3 Position only)

DIMENSIONS

TCS4S □-□□□

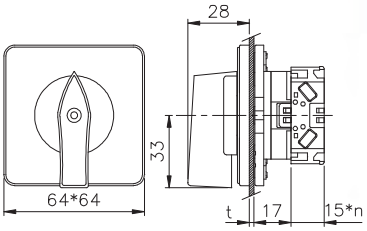




t=6max
N=number of contact blocks

TCS6S □-□□□

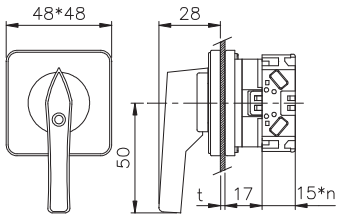




t=8max
N=number of contact blocks

TCS4L □-□□□

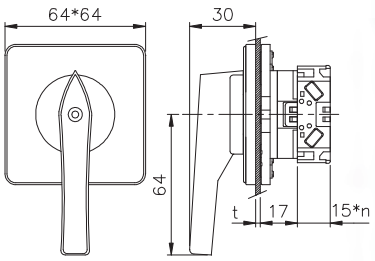




t=6max
N=number of contact blocks

TCS6L □-□□□

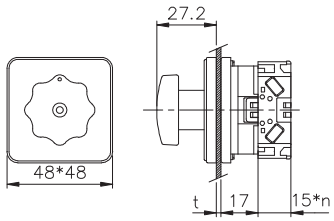




t=8max
N=number of contact blocks

TCS4O □-□□□

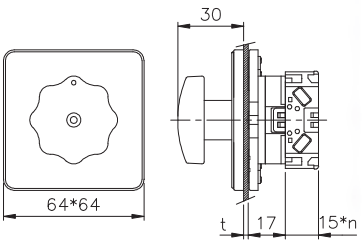




t=8max
N=number of contact blocks

TCS6O □-□□□





t=8max
N=number of contact blocks

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์
48x60 / 64x80

BEFORE PLACING NUMBERS SHOWN IN THIS PAGE

MODEL DESIGNATION

TCS 5 S A - 2 2209 R
① ② ③ ④ ⑤ ⑥

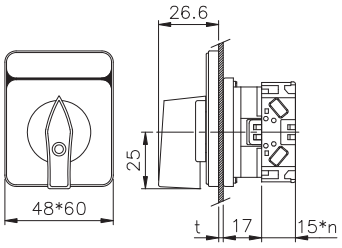
Designation	Signal	Description
1.Size	5	48 x 60
	7	64 x 80
2.Handle	S	Short handle
	L	Long handle
	O	Octagonal handle

Designation	Signal	Description
3.Position turn angle plate number	A-Z	See Page 171
4.Capacity	1	10 A
	2	16 A
	3	25 A
5.Wiring diagram number		See Page 173 - 184
6.Operation	None	Hold
	R	Spring return (45°, 2 Position, 3 Position only)

DIMENSIONS

TCS5S □□-□□□

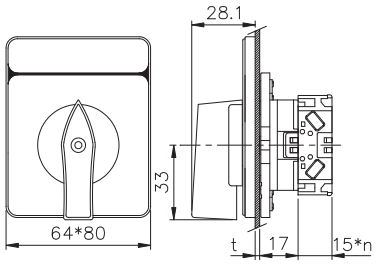




t=6max
N=number of contact blocks

TCS7S □□-□□□

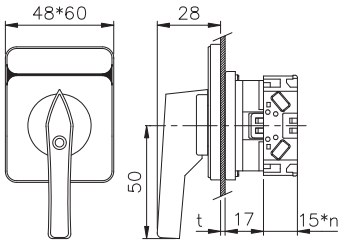




t=8max
N=number of contact blocks

TCS5L □□-□□□

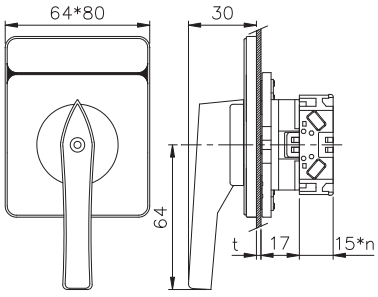




t=6max
N=number of contact blocks

TCS7L □□-□□□

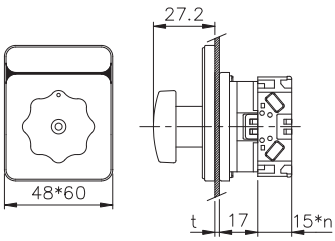




t=8max
N=number of contact blocks

TCS5O □□-□□□

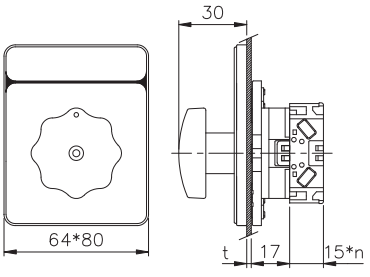




t=8max
N=number of contact blocks

TCS7O □□-□□□



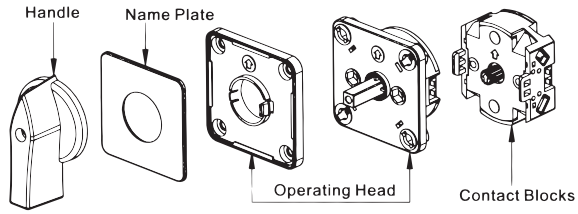


t=8max
N=number of contact blocks

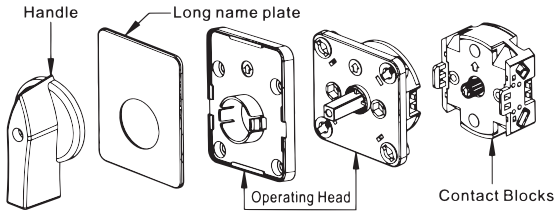
tend CAM SWITCH
แคมสวิตช์
48x48 / 64x64

AS TO ORDER OF COMPONENTS FOR DIY ASSEMBLY, PLEASE REFER TO THE FOLLOWING ASSEMBLY ILLUSTRATION DIAGRAM.

+ 48*48 mm and 64*64 mm series sub-assembly



+ 48*60 mm and 64*80 mm series sub-assembly



HANDLE DESIGNATION

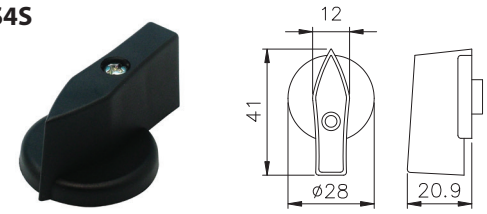
TCS 4 S
1 2

Designation	Signal	Description
1.Size	4	48 x 48 mm
	6	64 x 64 mm

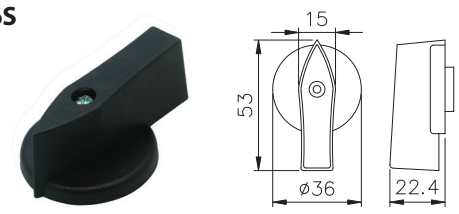
Designation	Signal	Description
2.Handle	S	Short handle
	L	Long handle
	O	Octagonal handle

DIMENSIONS

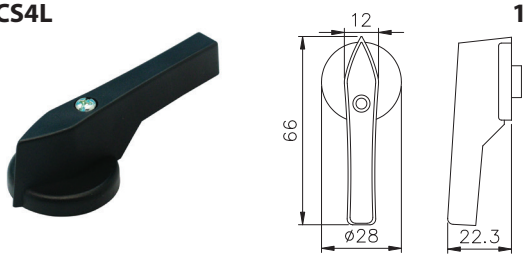
TCS4S — 55.-



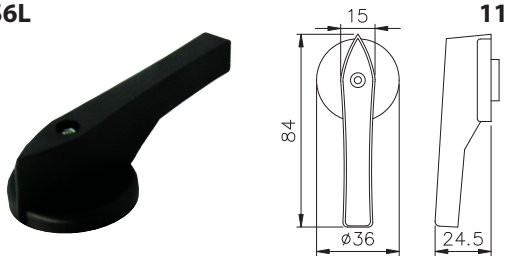
TCS6S — 55.-



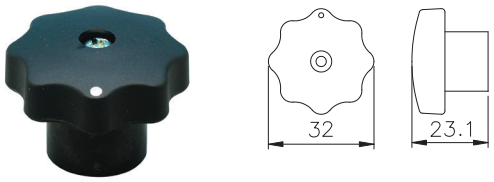
TCS4L — 110.-



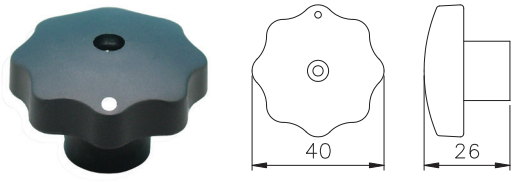
TCS6L — 110.-



TCS4O — 85.-



TCS6O — 85.-

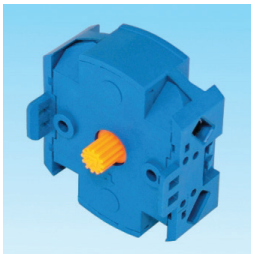


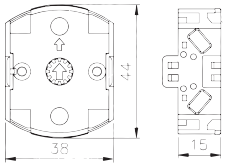
CONTACT BLOCK DESIGNATION

TCS 1 C 01
1 2 3

Designation	Signal	Description
1.Capacity	1	10 A
	2	16 A
	3	25 A
2.No. of contacts fitted	S	Single-point contact
	C	Double-point contact
3.Contacts blocks number	01-A1	

DIMENSIONS





Type	Price
TCS1 - CO1 ~ CA1	275.-
TCS1 - SO1 ~ SA1	275.-
TCS2 - CO1 ~ CA1	330.-
TCS2 - SO1 ~ SA1	330.-
TCS3 - CO1 ~ CA1	400.-
TCS3 - SO1 ~ SA1	400.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

CAM SWITCH
แคมสวิตช์
48x48 / 48x60 / 64x64 / 64x80

UPPER BASE DESIGNATION

TCS 6 2 4 R
(1) (2) (3) (4)

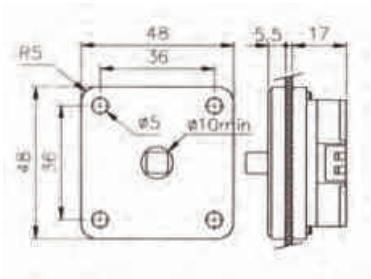
Designation	Signal	Description
1.Size	4	48 x 48
	5	48 x 60
	6	64 x 64
	7	64 x 80
2.Position	2 ~ 8	2 ~ 8 positions

Designation	Signal	Description
3.Turn angle	4	4 45°
	9	9 90°
4.Operation (45, 2 Positions, 3 Positions only)	None	None Hold
	R	Spring return (except 90°)

UPPER BASE DIAMENSION

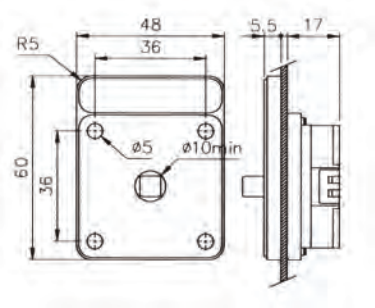
TCS4 □□





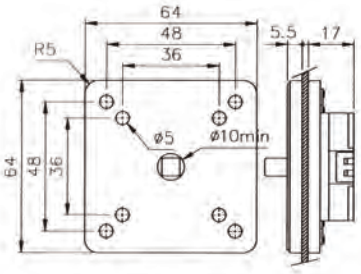
TCS5 □□





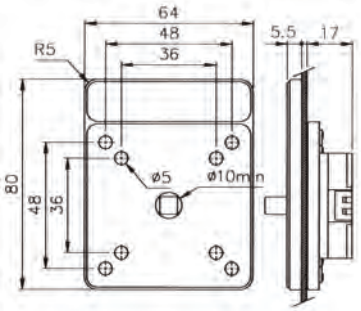
TCS6 □□





TCS7 □□



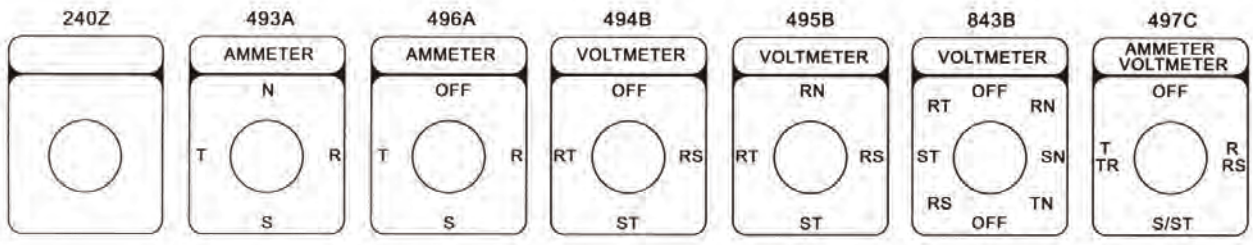


LONG PLATE DESIGNATION

TCS 5P 493A
(1) (2)

Designation	Signal	Description
1.Long plate dimension	5P	48 x 60 plate
	7P	64 x 80 plate
2.Long plate number	240Z ~ 497C	See Page 173

LONG PLATE NUMBER



tend CAM SWITCH

แคมสวิตช์

48x48 / 64x64

NAME PLATE DESIGNATION

TCS 4P 242
(1) (2)

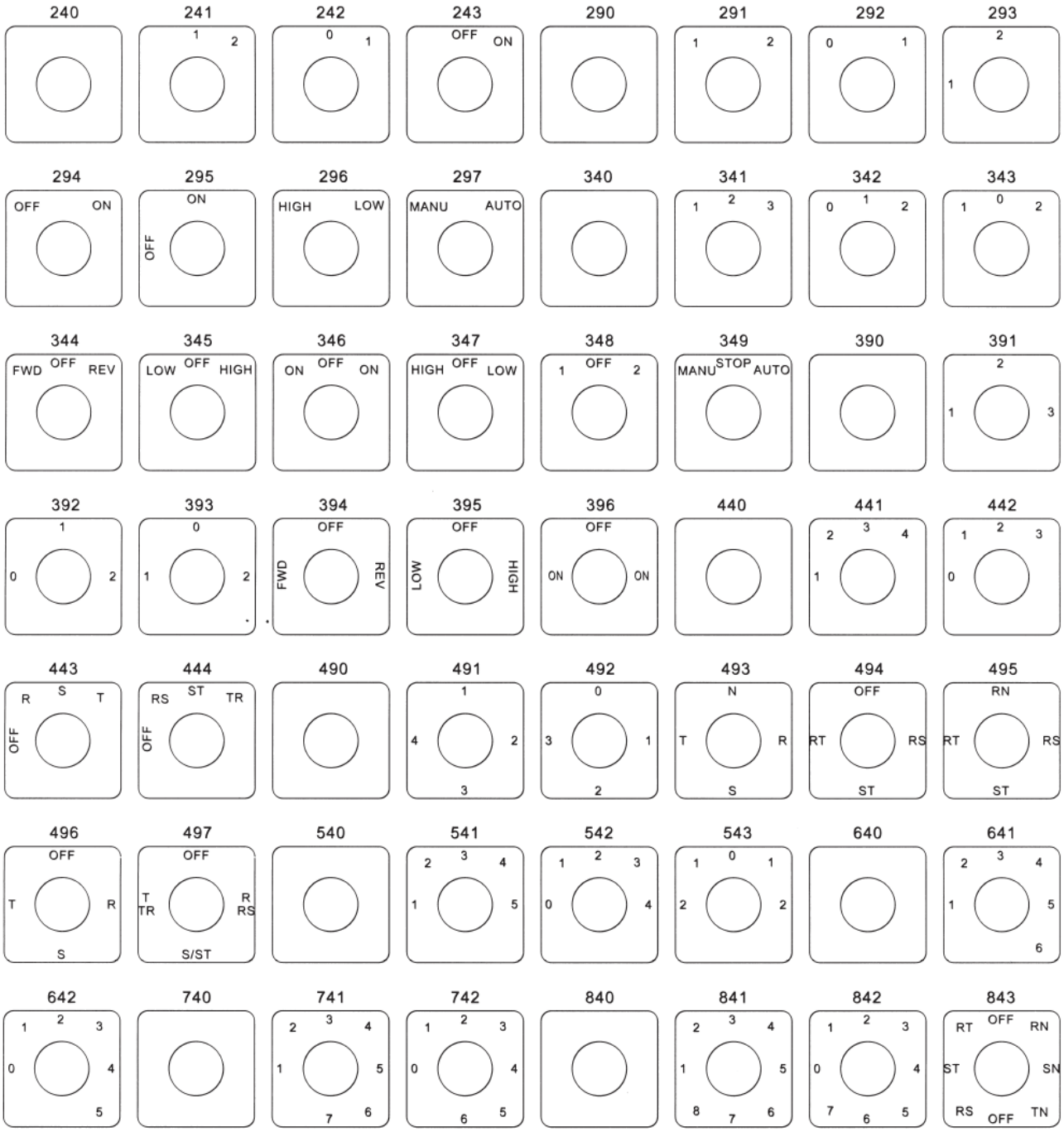
Designation	Signal	Description
1.Name plate dimentions	4P	48 x 48
	6P	64 x 64
2.Name plate number	240 ~ 843	See number designation on right

NUMBER DESIGNATION

TCS 2 4 2
(1) (2) (3)

Designation	Signal	Description
1.Position	2 ~ 8	2 ~ 8 Position
2.Turn angle	4	45°
	9	90°
3.Designation	0 ~ 9	See Page 174

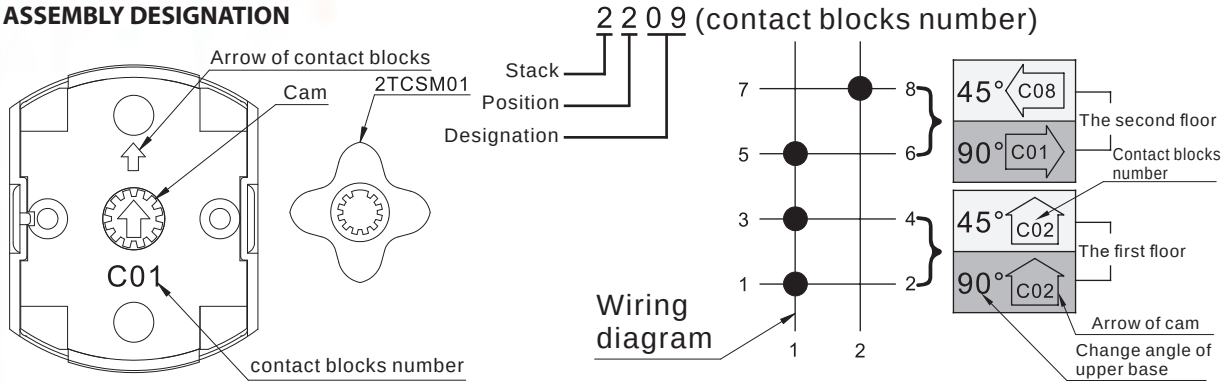
NAME PLATE NUMBER



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

ASSEMBLY DESIGNATION



- Put cam to 1TCSM01, set the arrow of the contact blocks pointing "up", rotate cam and make cam's arrow pointing to the required direction. (See wiring diagram)
- Customer may order double-point contact coded as TCS□~C01~CA3, or single-point contact coded as TCS□-S01-SA3
- Way of assembly : as illustrated above
  When the turning angle of upper base is 45°, the arrow of the first layer of contact coded CO2 points "up" while that of the second layer coded CO8 points to the left.
  When the turning angle of upper base is 90°, the arrow of the first layer of contact coded CO2 points "up" while that of the second layer coded CO1 points to the right.

WIRING DIAGRAM

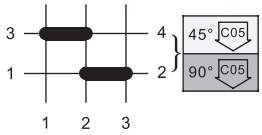
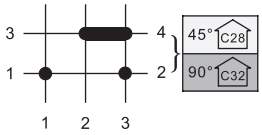
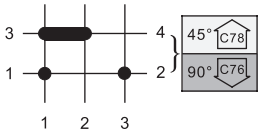
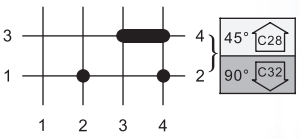
- **ONE STACK**

1201(0 2A)	1202	1203	1204
1205(1A*2)	1206	1207	1208
1209	1219	1220	1301(1A 0 1A)
1302	1303	1304	1305
1306	1307	1308	1309
1310	1311	1312	1313

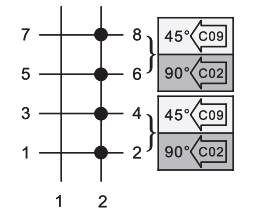
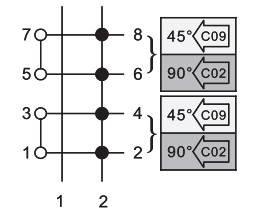
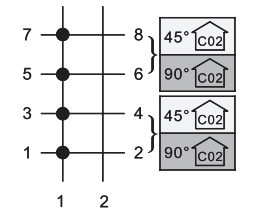
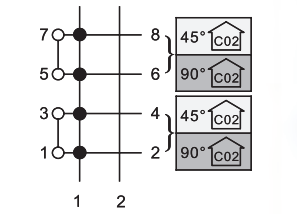
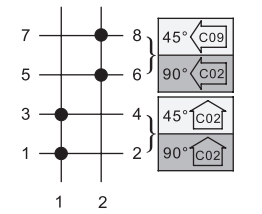
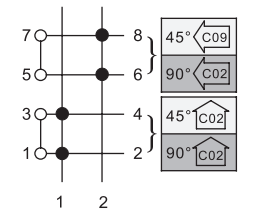
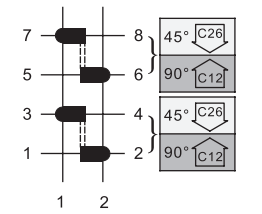
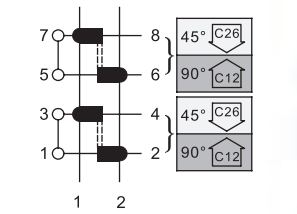
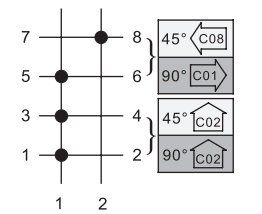
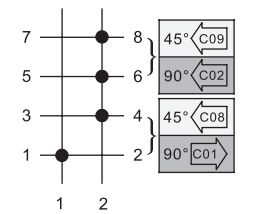
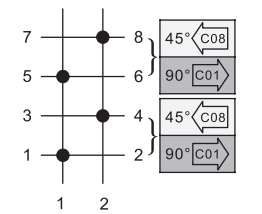
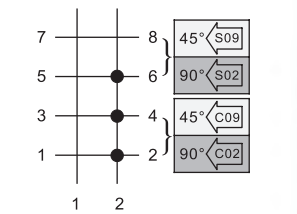
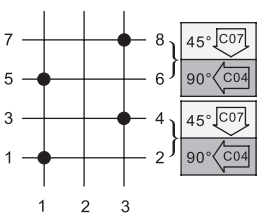
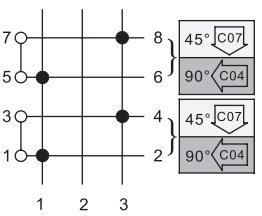
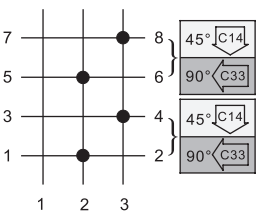
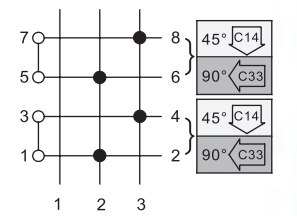
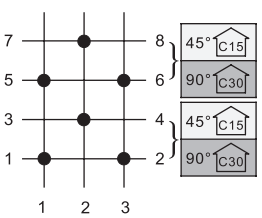
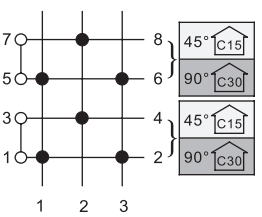
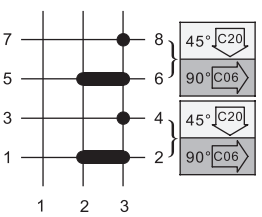
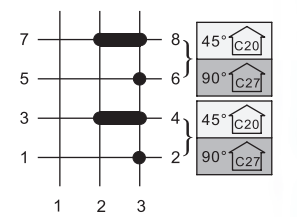
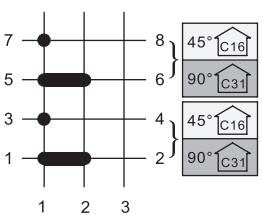
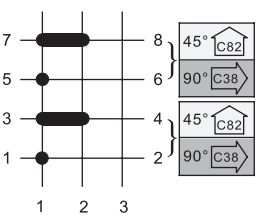
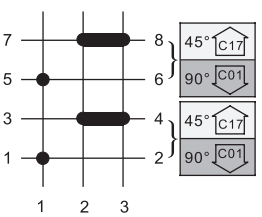
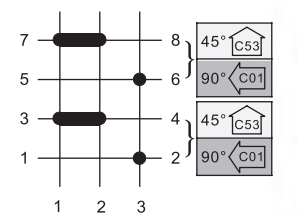
หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

1314	1315	1316	1401
			

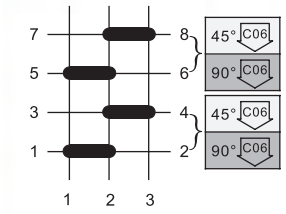
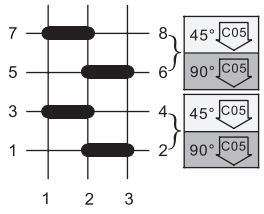
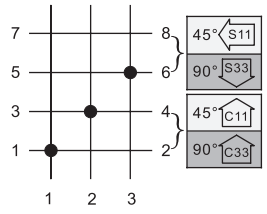
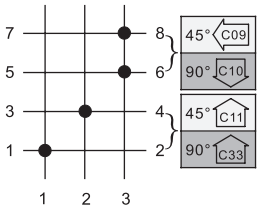
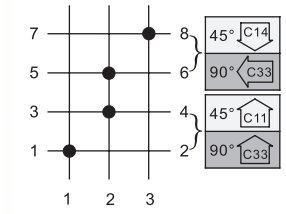
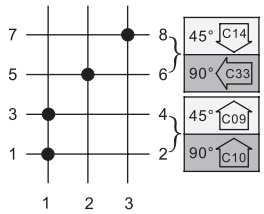
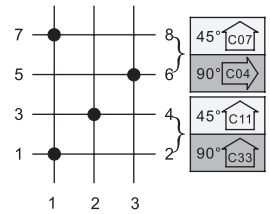
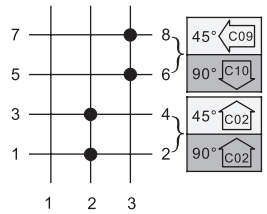
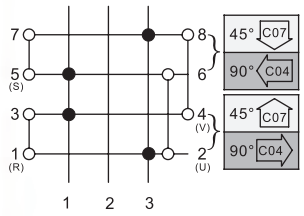
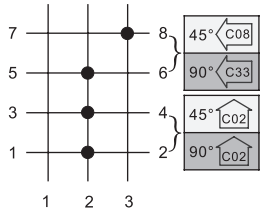
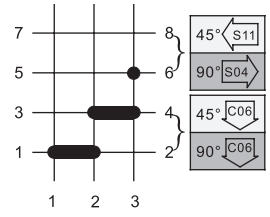
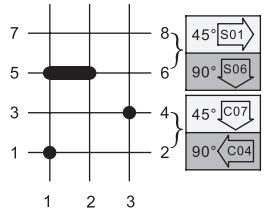
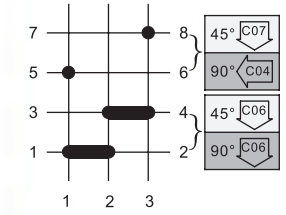
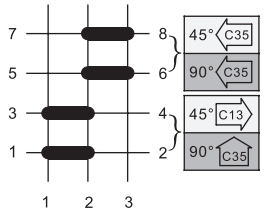
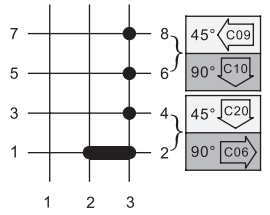
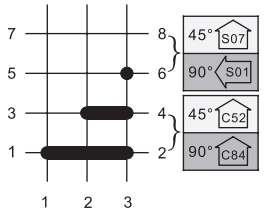
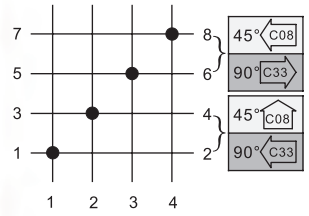
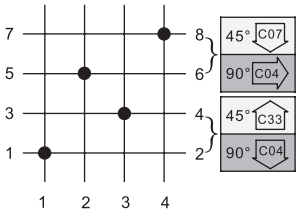
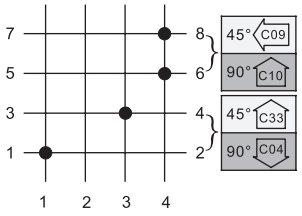
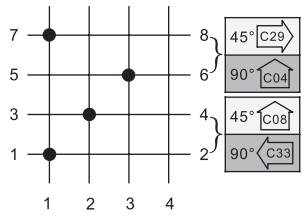
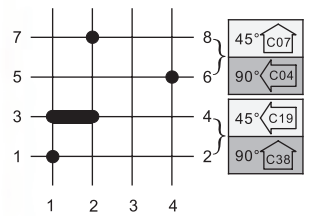
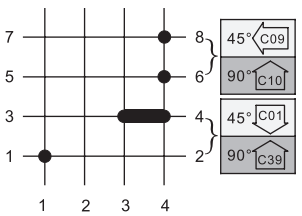
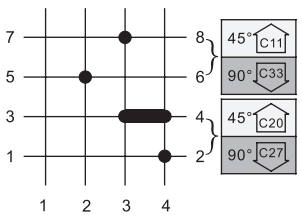
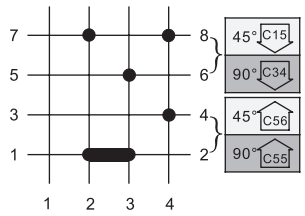
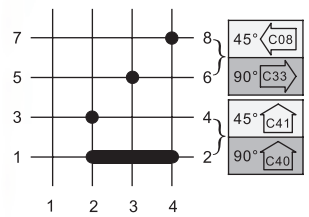
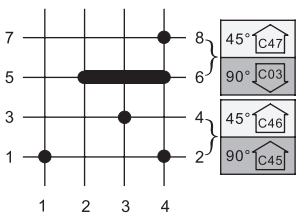
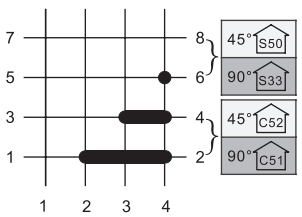
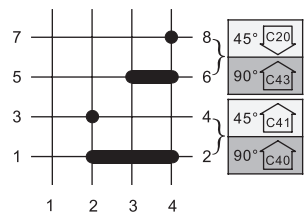
● TWO STACKS

2201(0 4A)	2202	2203	2204
			
2205(2A*2)	**2206**	**2207**	**2208**
			
2209	**2210**	**2211**	**2220(0 3A)**
			
2301(2A 0 2A)	**2302**	**2303**	**2304**
			
2305	**2306**	**2307**	**2308**
			
2309	**2310**	**2311**	**2312**
			

หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

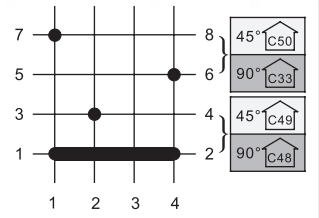
2313 	2314 	2315(1A*3) 	2316 
2317 	2318 	2319 	2320 
2321(3ØF.O.R 2P) 	2322 	2323 	2324 
2325 	2326 	2327 	2328 
2401(1A*4) 	2402 	2403 	2404 
2405 	2406 	2407 	2408 
2409 	2410 	2411 	2412 

หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

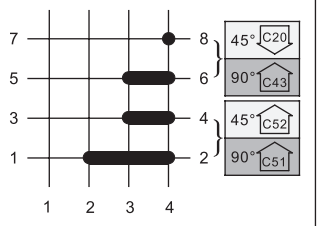
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

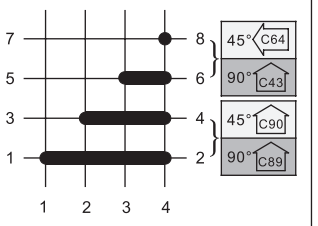
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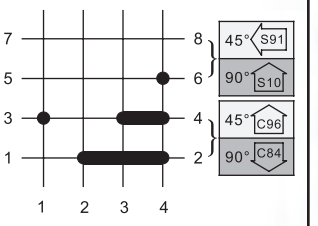
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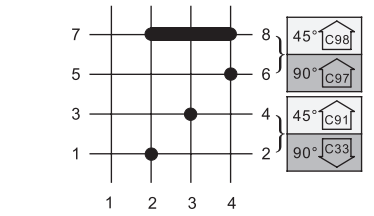
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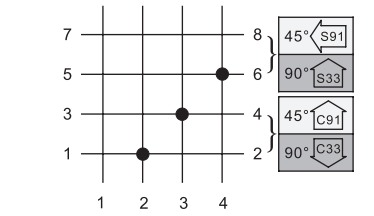
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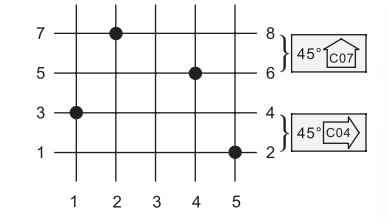
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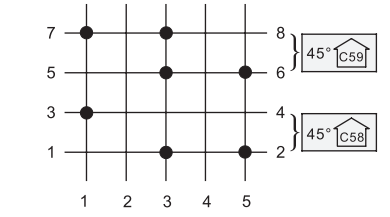
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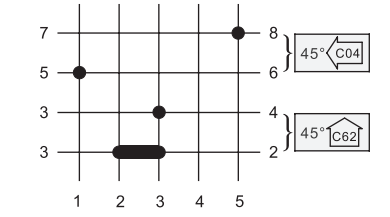
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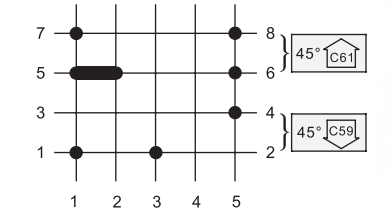
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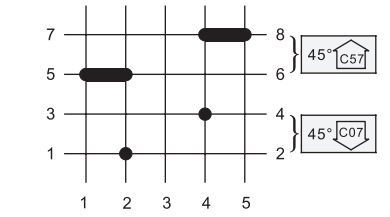
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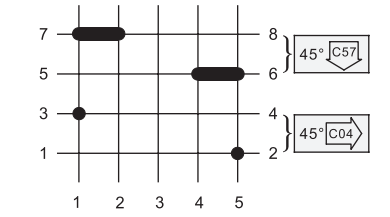
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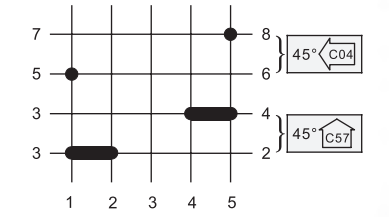
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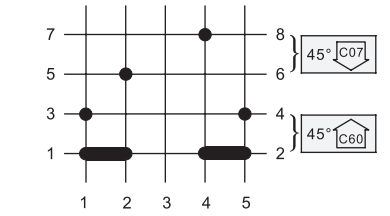
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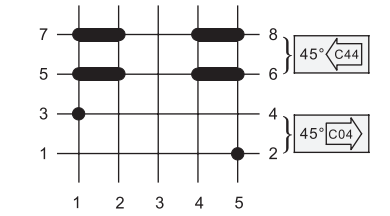
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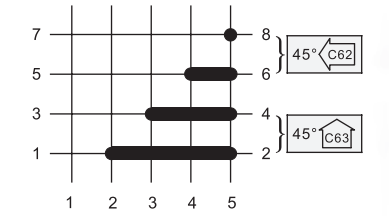
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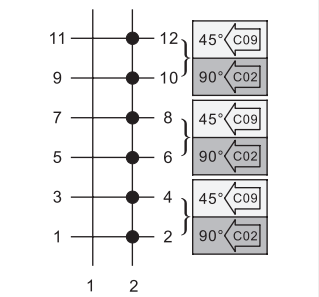


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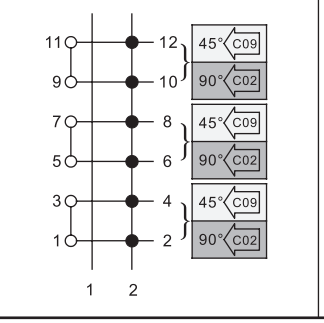


● THREE STACKS

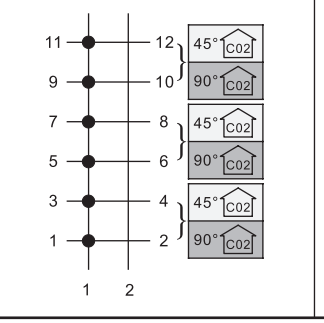
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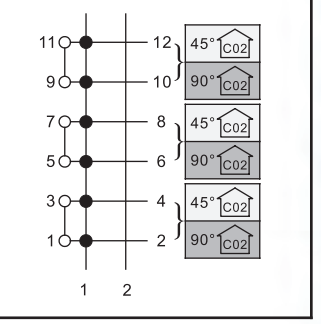
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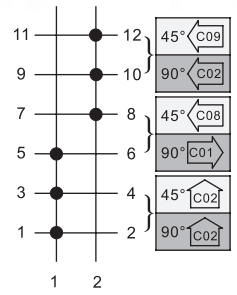
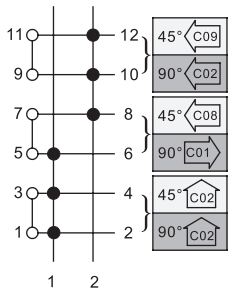
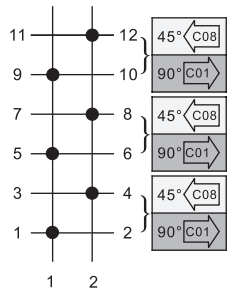
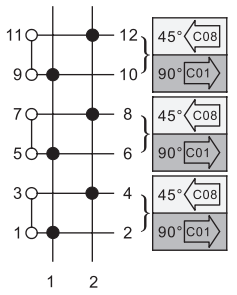
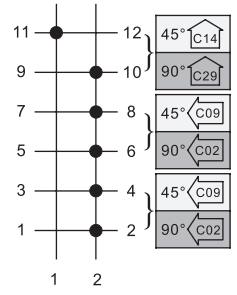
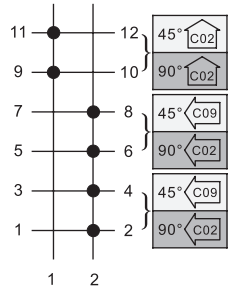
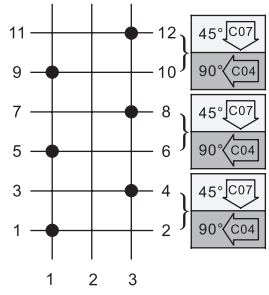
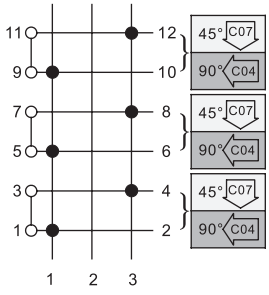
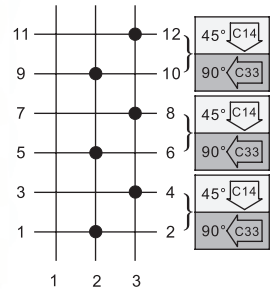
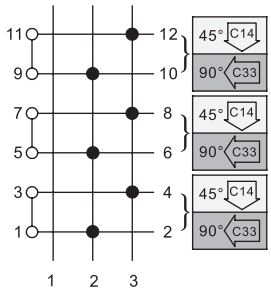
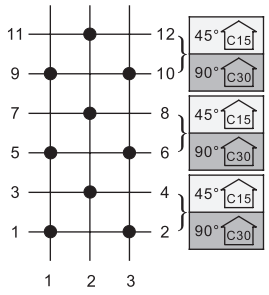
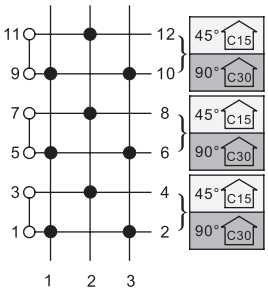
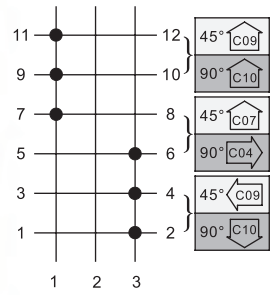
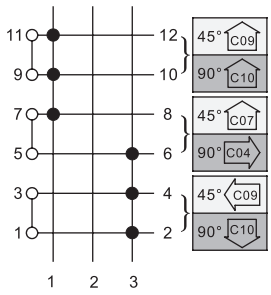
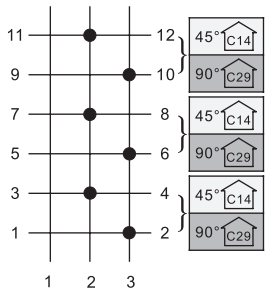
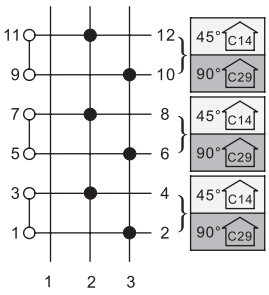
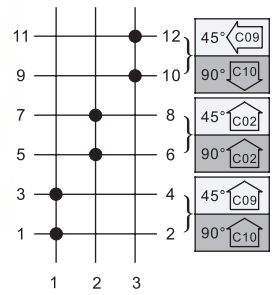
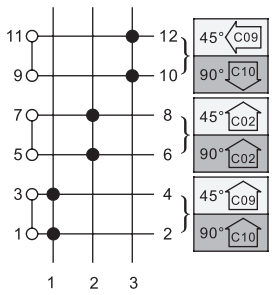
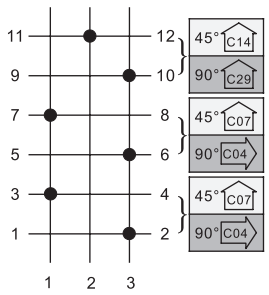
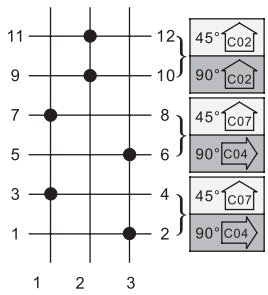
3204



หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

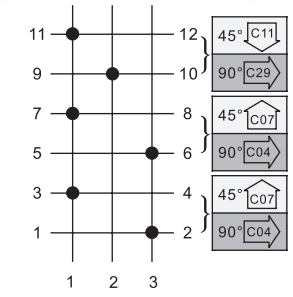
tend CAM SWITCH
แคมสวิตช์

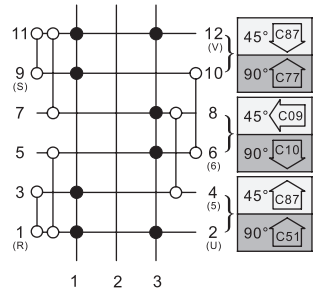
3205(3A*2) 	3206 	3207 	3208 
3209 	3210 	3301(3A 0 3A) 	3302 
3303 	3304 	3305 	3306 
3307 	3308 	3309 	3310 
3311(2A*3) 	3312 	3313 	3314 

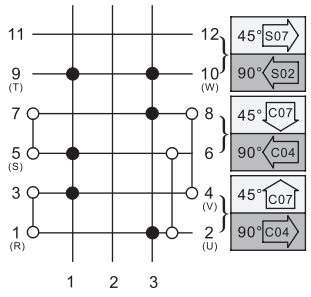
หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

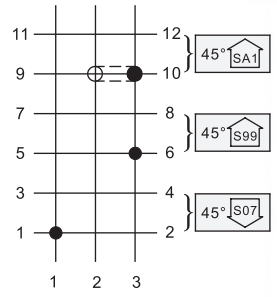
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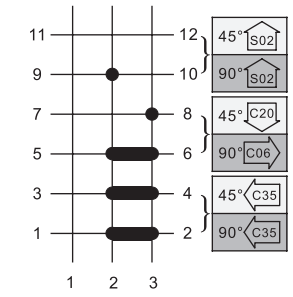
tend CAM SWITCH
แคมสวิตช์

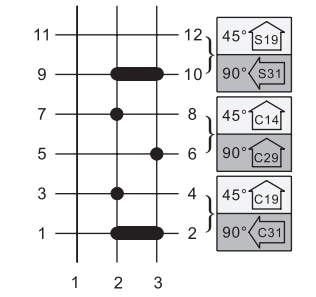
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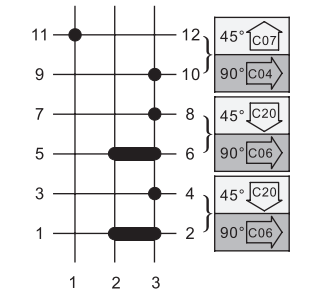
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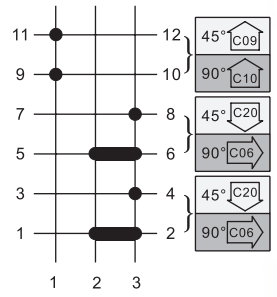
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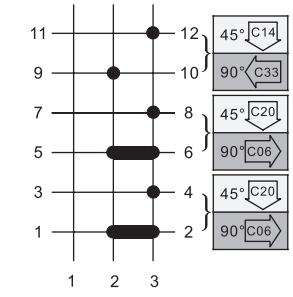
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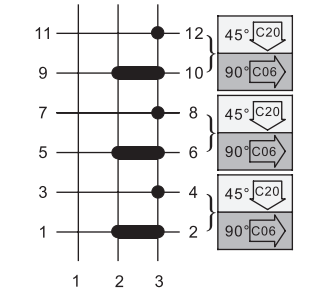
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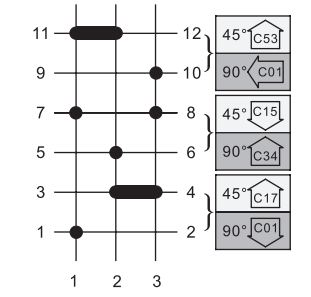
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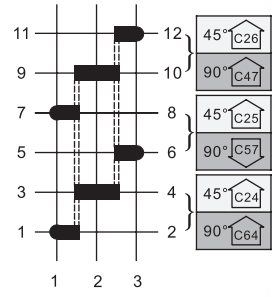
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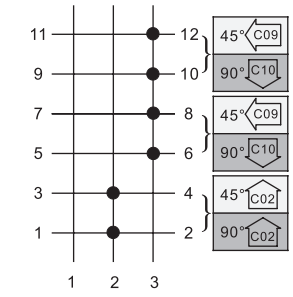
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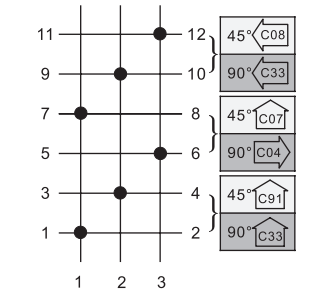
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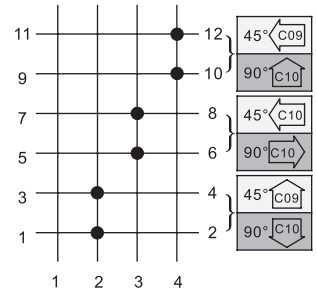
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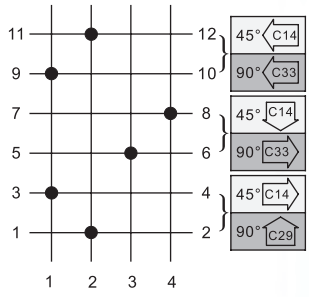
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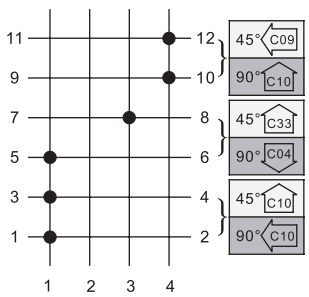
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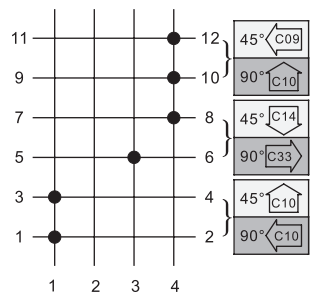
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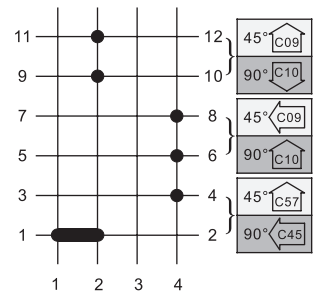
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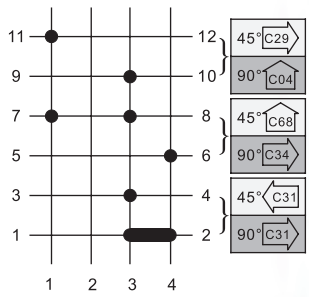
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3402


3403


3404


3405


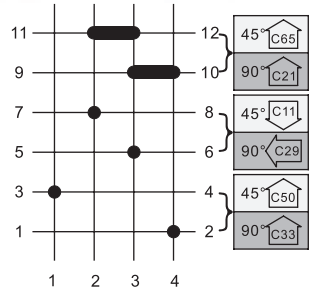
3406


หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

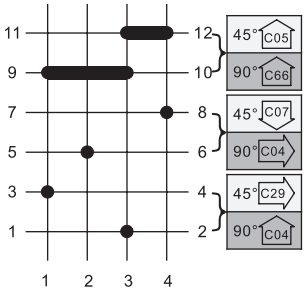
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

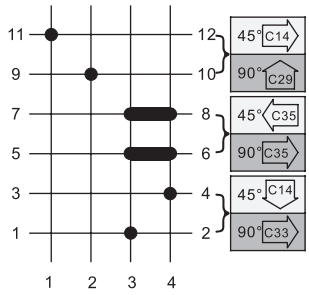
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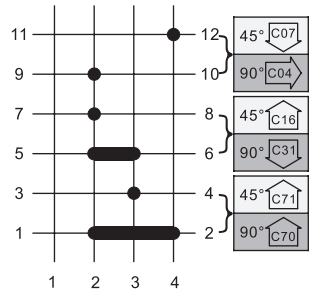
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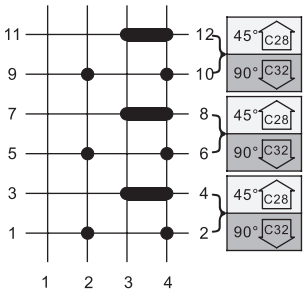
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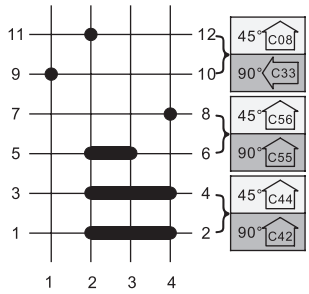
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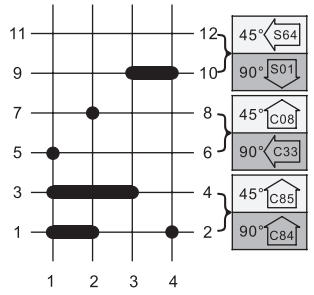
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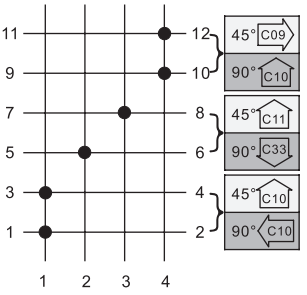
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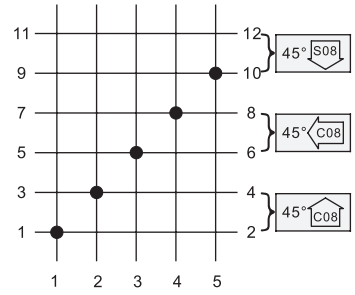
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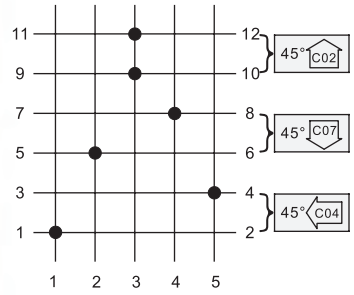
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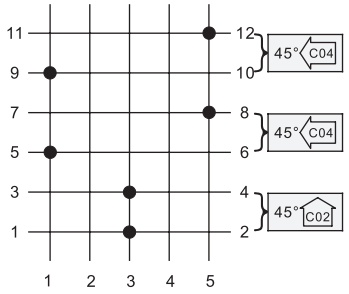
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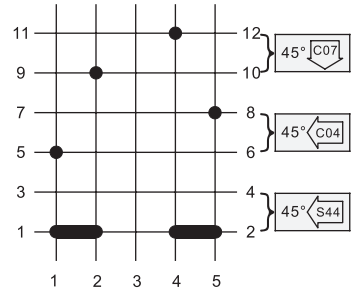
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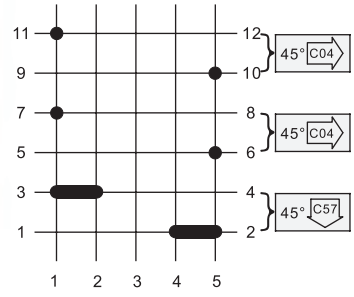
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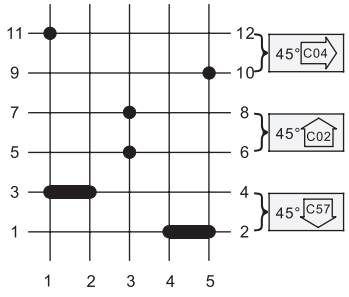
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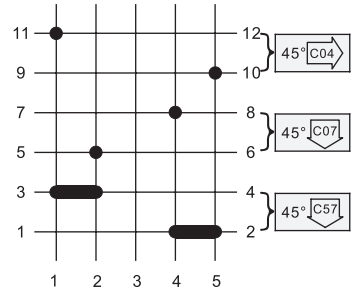
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3506



3507

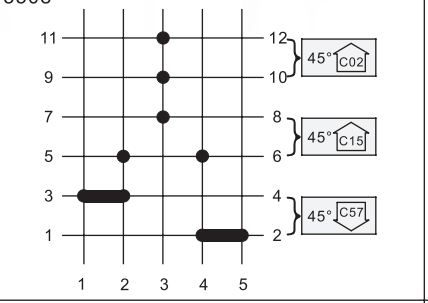


หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

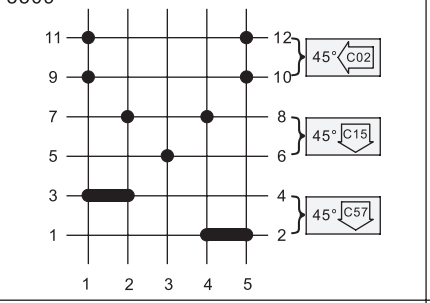
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

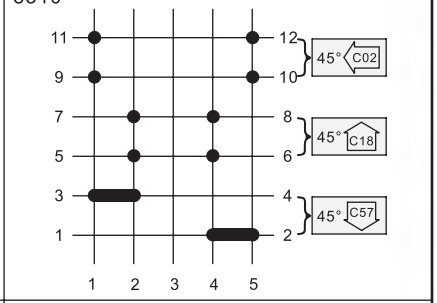
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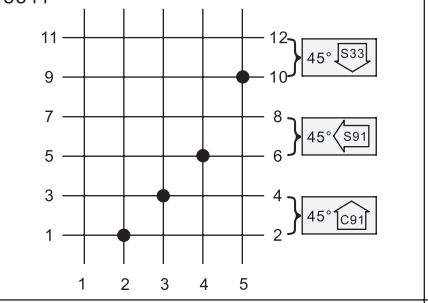
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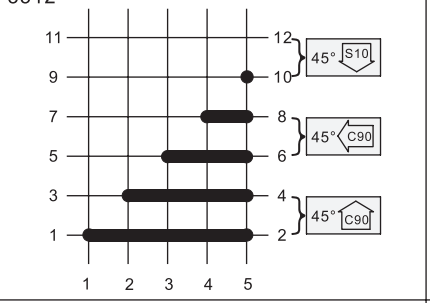
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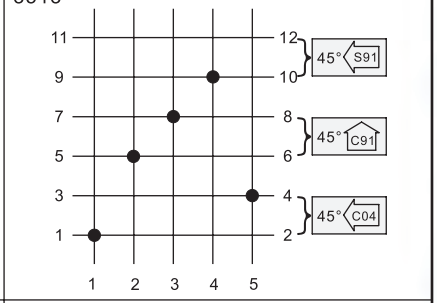
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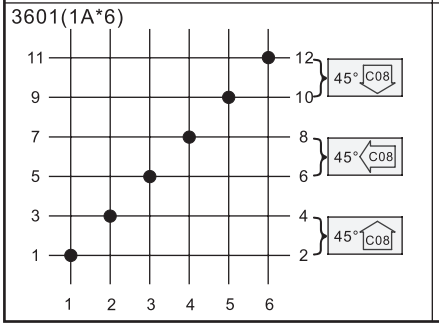
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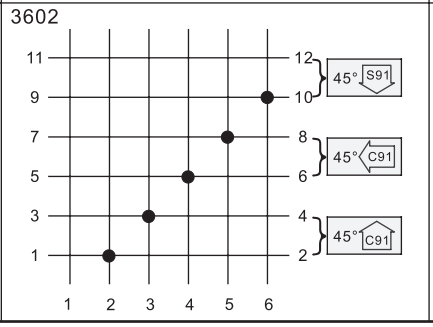
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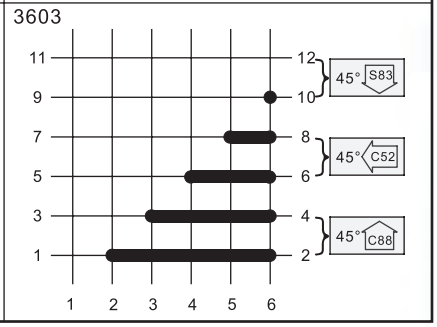
3601(1A*6)



3602

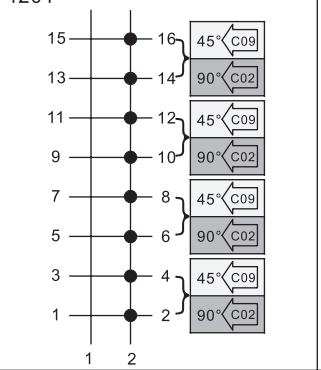


3603

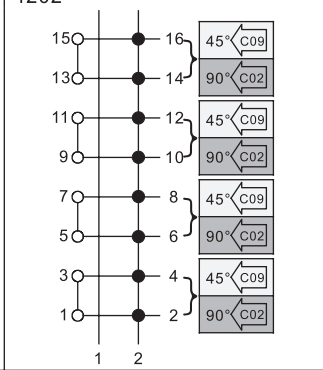


● FOUR STACKS

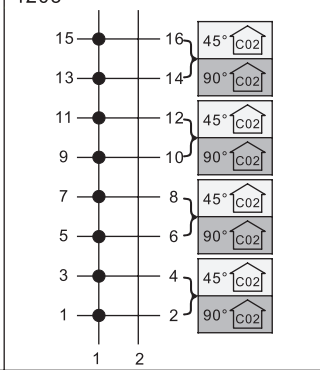
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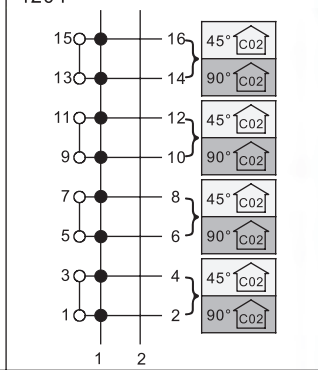
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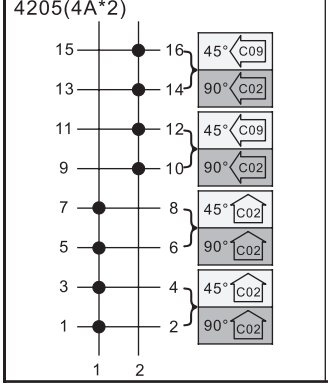
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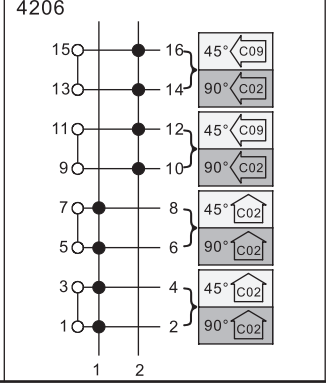
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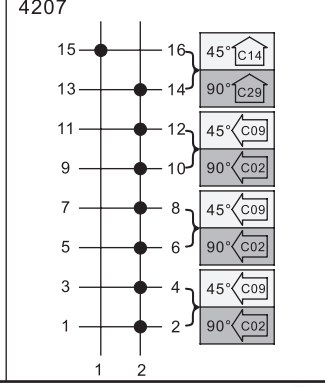
4205(4A*2)



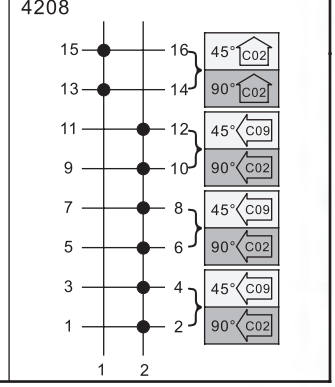
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4207



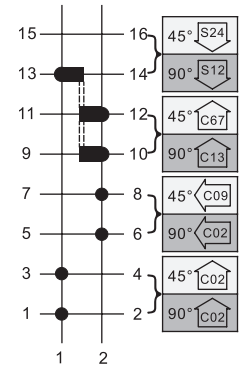
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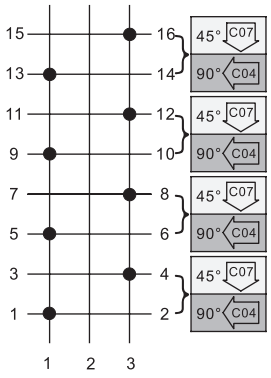


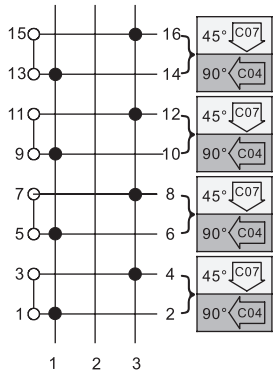
หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

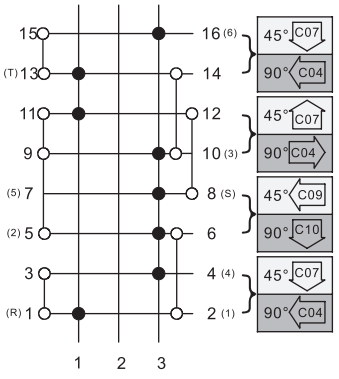
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

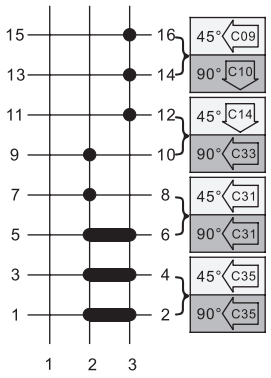
tend CAM SWITCH
แคมสวิตช์

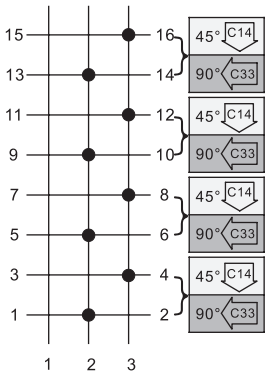
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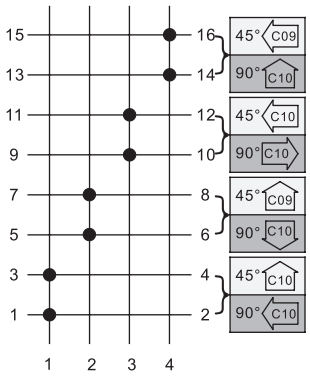
4301(4A 0 4A)


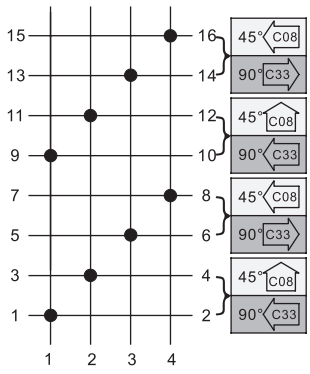
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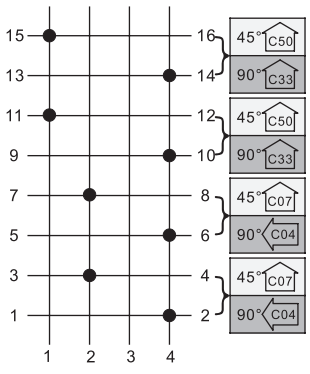
4303(double pole)


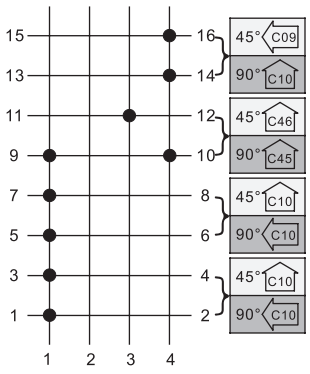
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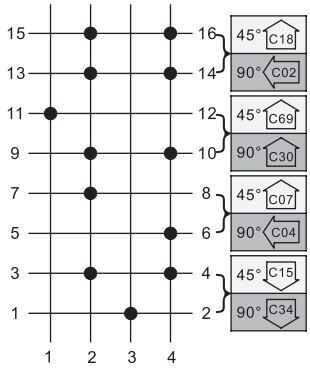
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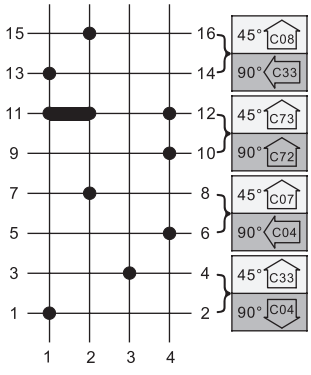
4401(2A*4)


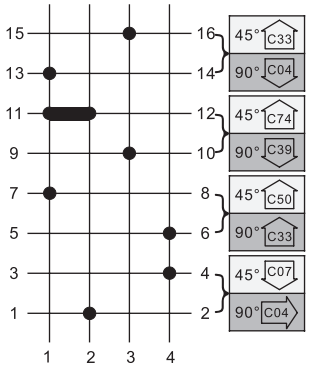
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4403


4404


4405


4406


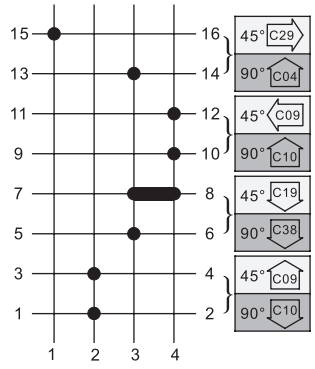
4407


หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

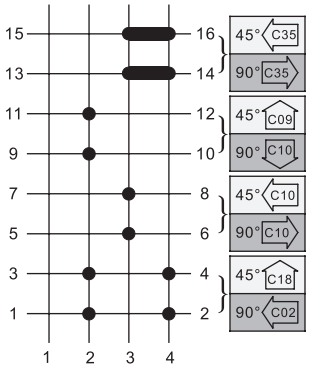
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

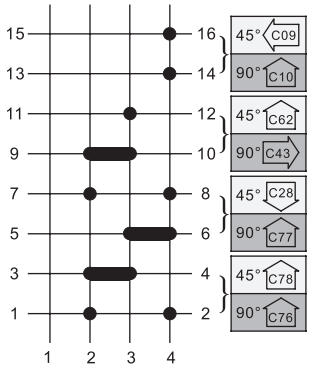
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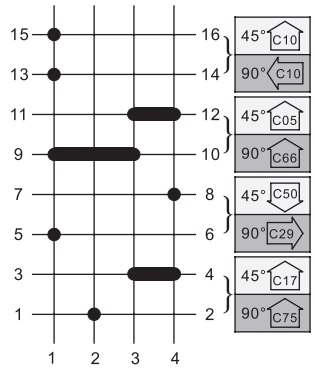
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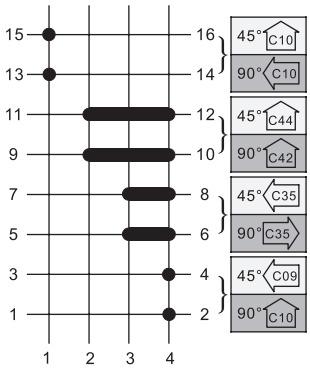
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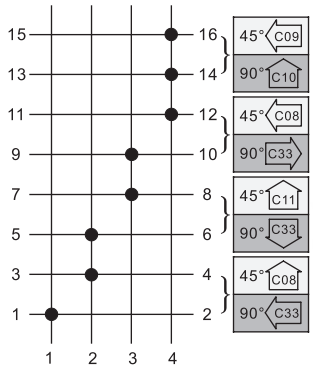
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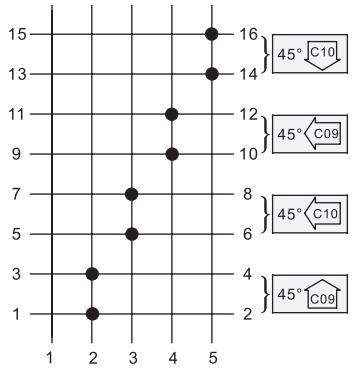
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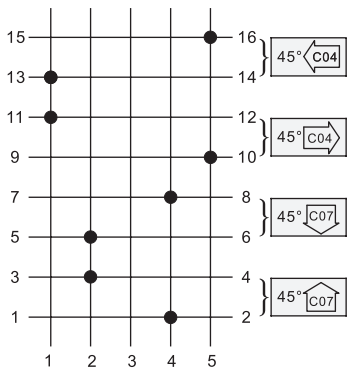
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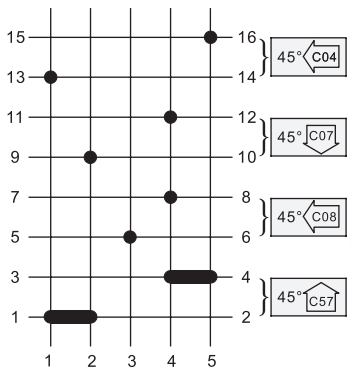
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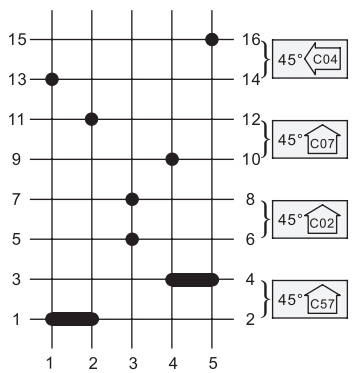
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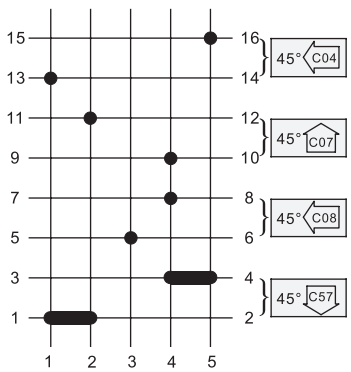
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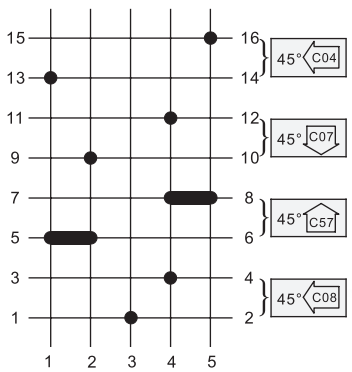
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4505



4506



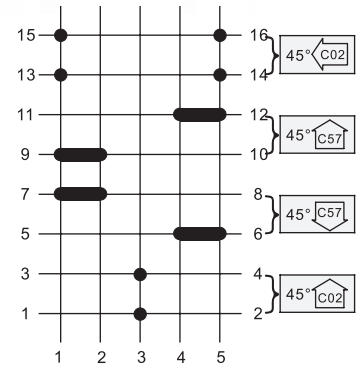
หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

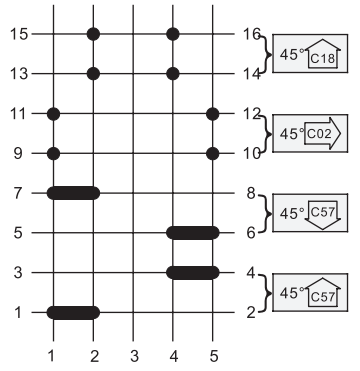
tend

CAM SWITCH
แคมสวิตช์

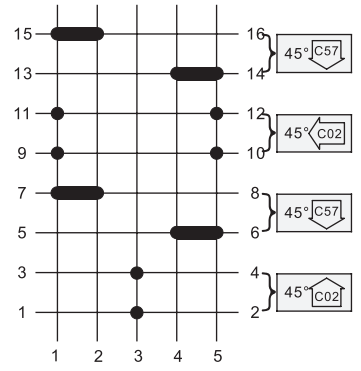
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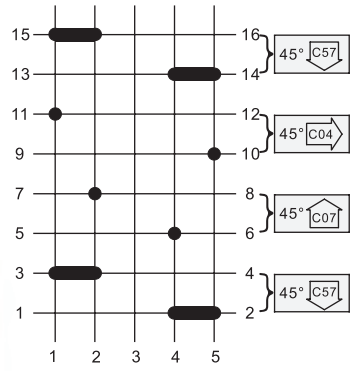
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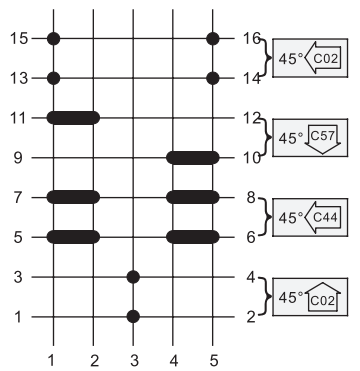
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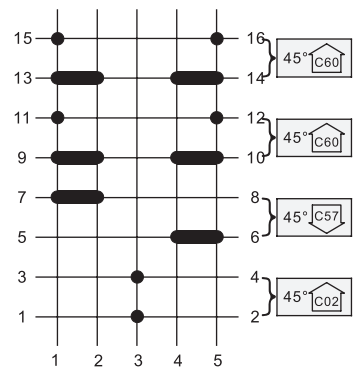
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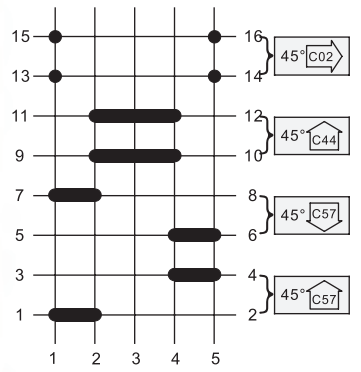
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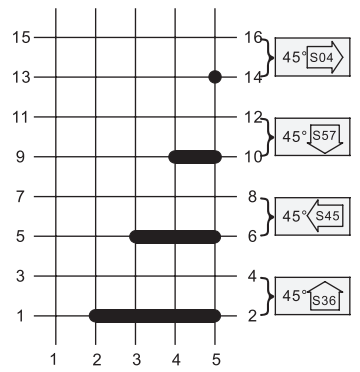
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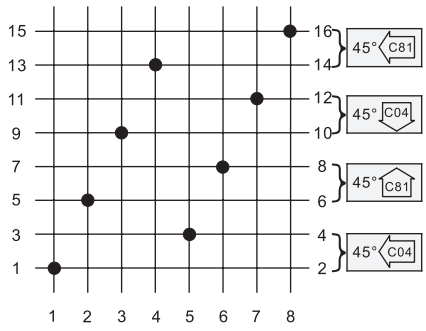
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4514

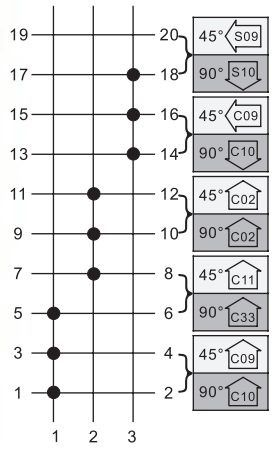


4801(1A*8)

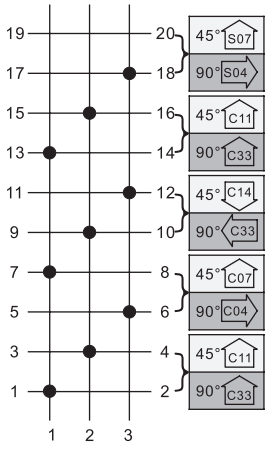


FIVE STACKS

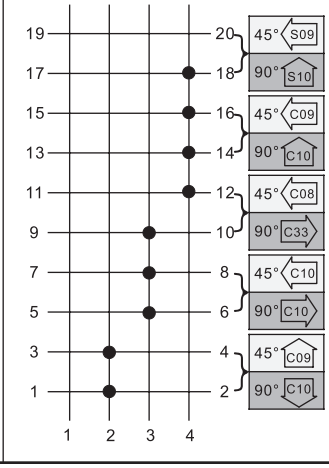
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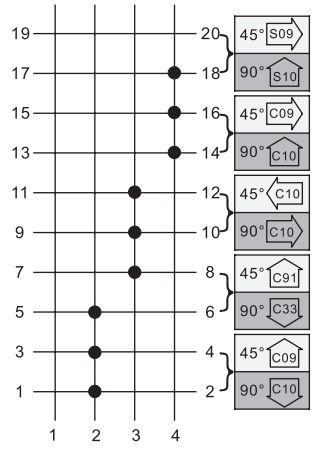
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5401



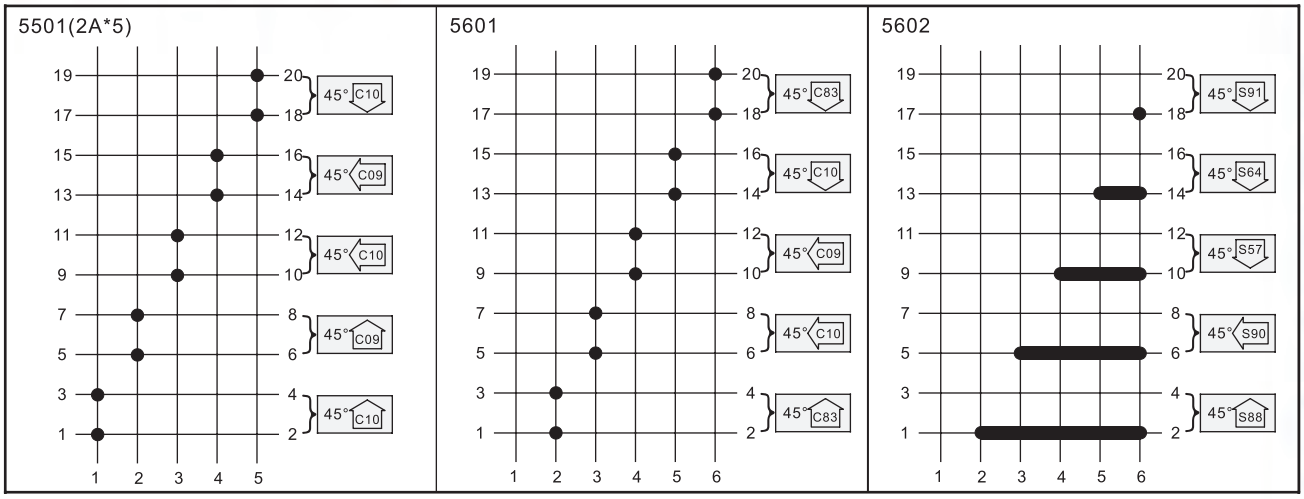
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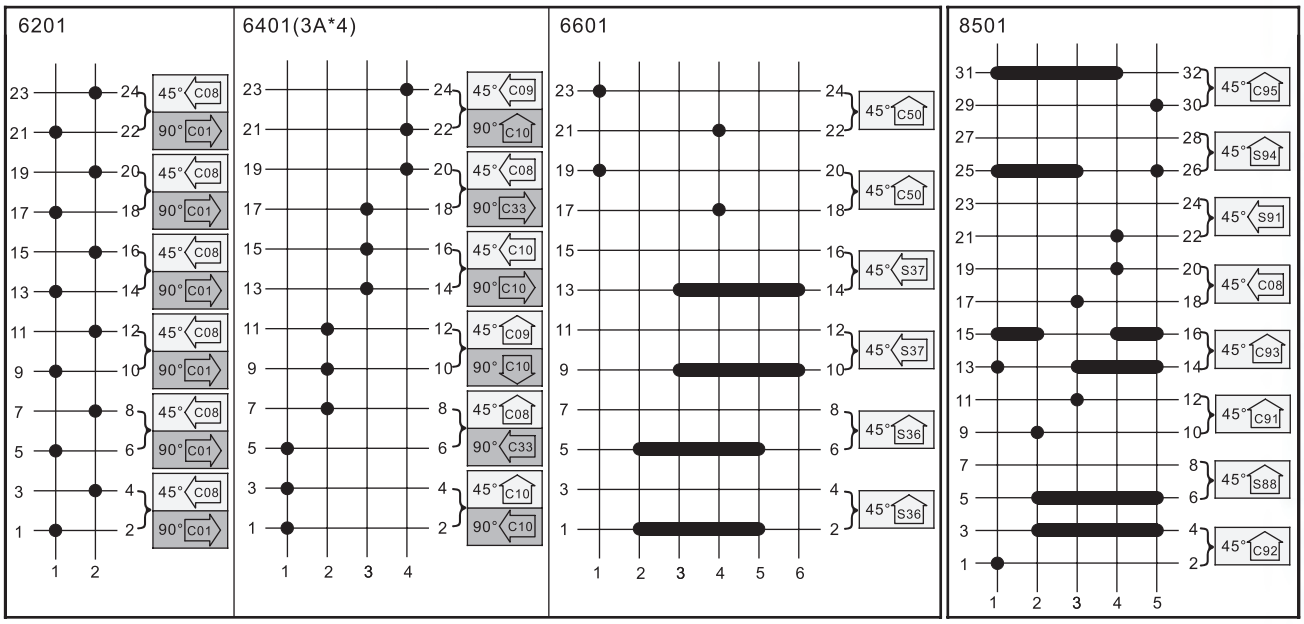
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*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์

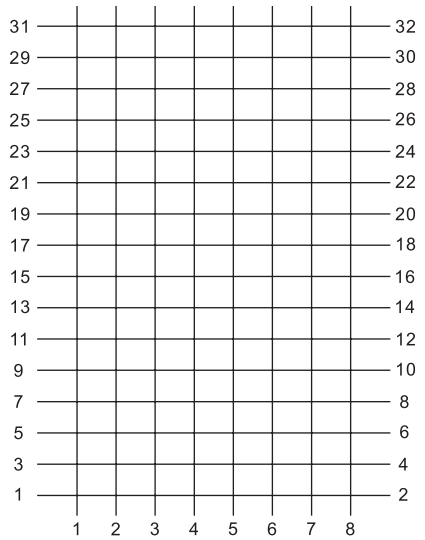


SIX STACKS 八層



ORDER FROM FOR SPECIAL CONTACTS

- If customer has special contact requirement, please copy the following blank contact diagram and mark the required contacts.



Designation	Description
Size	☐ 2 (O22/ O25mm)
	☐ 3 (O30mm)
	☐ 4 (48*48mm)
	☐ 5 (48*60mm)
	☐ 6 (64*64mm)
	☐ 7 (64*80mm)
Handle	☐ S (Short handle)
	☐ L (Long handle)
	☐ O (Aniseed handle)
	☐ K (Key)
Position	☐ 2~8 Positions
Turn angle	4 (45°)
	9 (90°)

Designation	Description
Plate designation	▭ See page 174
Long plate designation	▭ See page 173
Capacity	☐ 1 (10A)
	☐ 2 (16A)
	☐ 3 (25A)
Return	☐ Yes
	☐ No
Action	Contact / Hold / Return hold
Piece	▭ Pcs.

หมายเหตุ : บริษัทได้จัดสเปคสินค้าประเภท Cam switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อก Cam switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH

สวิตช์ 2 ทาง / สวิตช์ 3 ทาง

48x48

สวิตช์ 2 ทาง

NEW

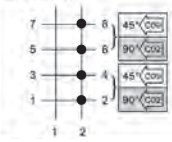
- **Mounting size 48 x 48 mm**



243



2201 (0 4A)



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S243-1-2201	2 Step	2P	10A	2.2kW	48 x 48	825.-
TCS4S243-2-2201	2 Step	2P	16A	5.5kW		915.-
TCS4S243-3-2201	2 Step	2P	25A	7.5kW		1,005.-

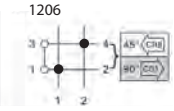
- **Mounting size 48 x 48 mm**



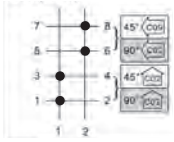
291



1206



2205 (2A*2)

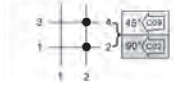




297



1201 (0 2A)

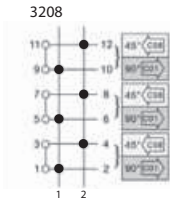




294



3208



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S291-2-1206	2 Step	1P	16A	5.5kW	48 x 48	705.-
TCS4S291-2-2205	2 Step	2P				915.-
TCS4S291-2-3208	2 Step	3P				1,320.-
TCS4S297-2-1206	2 Step	1P				705.-
TCS4S297-2-2205	2 Step	2P				915.-
TCS4S297-2-3208	2 Step	3P				1,320.-
TCS4S294-1-1201	2 Step	1P	10A	2.2kW		670.-
TCS4S294-2-1206	2 Step	1P	16A	5.5kW		705.-
TCS4S294-2-2205	2 Step	2P				915.-
TCS4S294-2-3208	2 Step	3P				1,320.-

สวิตช์ 3 ทาง

NEW

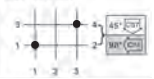
- **Mounting size 48 x 48 mm**



343



1301 (1A 01 A)

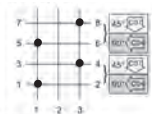




349



2301 (2A 0 2A)

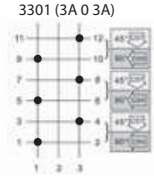




346



3301 (3A 0 3A)



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S343-2-1301	3 Step	1P	16A	5.5kW	48 x 48	705.-
TCS4S343-2-2301	3 Step	2P				915.-
TCS4S343-2-3301	3 Step	3P				1,320.-
TCS4S349-2-1301	3 Step	1P				705.-
TCS4S349-2-2301	3 Step	2P				915.-
TCS4S349-2-3301	3 Step	3P				1,320.-
TCS4S346-2-1301	3 Step	1P				705.-
TCS4S346-2-2301	3 Step	2P				915.-
TCS4S346-2-3301	3 Step	3P				1,320.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH

สวิตช์ 3 ทาง ควบคุมมอเตอร์

48x48 / 48x64

สวิตช์ 3 ทาง (ควบคุมมอเตอร์ 3 phase)

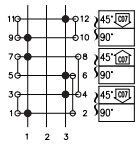
NEW



344



3378

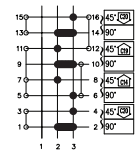


Model	Pole	Rated (380V)		Mounting size	Price
		AC1	AC3		
TCS4S344-1-3378	3P	10A	5.5kW	48 x 48	1,180.-
TCS4S344-2-3378		16A			1,320.-
TCS4S344-3-3378		25A			1,475.-



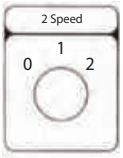


4340

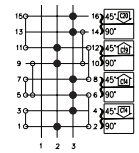


Model	Pole	Rated (380V)		Mounting size	Price
		AC1	AC3		
TCS7S340Z-1-4340	4P	10A	2.2kW	48 x 64	1,180.-
TCS7S340Z-2-4340		16A	5.5kW		1,320.-
TCS7S340Z-3-4340		25A	7.5kW		1,475.-



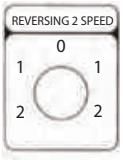


4341

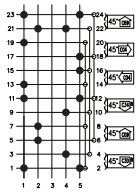


Model	Pole	Rated (380V)		Mounting size	Price
		AC1	AC3		
TCS7S340Z-1-4341	4P	10A	2.2kW	48 x 64	1,080.-
TCS7S340Z-2-4341		16A	5.5kW		1,320.-
TCS7S340Z-3-4341		25A	7.5kW		1,475.-





6503



Model	Pole	Rated (380V)		Mounting size	Price
		AC1	AC3		
TCS7S340Z-1-6503	6P	10A	2.2kW	48 x 64	1,080.-
TCS7S340Z-2-6503		16A	5.5kW		1,320.-
TCS7S340Z-3-6503		25A	7.5kW		1,475.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

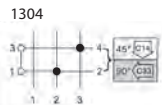
tend CAM SWITCH
สวิตช์มัลติสเต็ป
48x48

สวิตช์มัลติสเต็ป

NEW

3 STEP

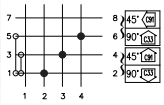


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S342-2-1304	3 Step	1P	16A	5.5kW	48 x 48	705.-

4 STEP

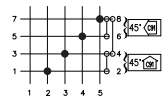


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S442-2-2443	4 Step	2P	16A	5.5kW	48 x 48	915.-

5 STEP

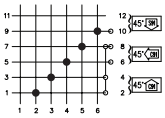


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S542-2-2538	5 Step	2P	16A	5.5kW	48 x 48	935.-

6 STEP

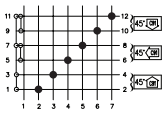


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S642-2-3607	6 Step	3P	16A	5.5kW	48 x 48	1,320.-

7 STEP

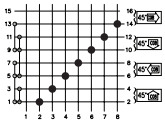


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S742-2-3706	7 Step	3P	16A	5.5kW	48 x 48	1,320.-

8 STEP



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S842-2-4805	8 Step	4P	16A	5.5kW	48 x 48	1,650.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

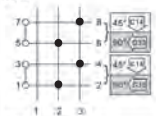
tend CAM SWITCH
สวิตช์มัลติสเต็ป
48x48

สวิตช์มัลติสเต็ป

NEW

3 STEP

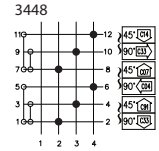


342

2304

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S342-2-2304	3 Step	2P	16A	5.5kW	48 x 48	915.-

4 STEP

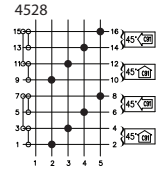


442

3448

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S442-2-3448	4 Step	3P	16A	5.5kW	48 x 48	1,320.-

5 STEP

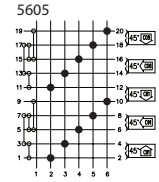


542

4528

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S542-2-4528	5 Step	4P	16A	5.5kW	48 x 48	1,650.-

6 STEP

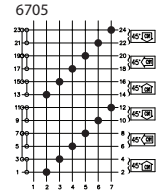


642

5605

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S642-2-5605	6 Step	5P	16A	5.5kW	48 x 48	1,970.-

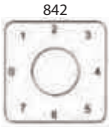
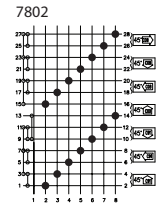
7 STEP



742

6705

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S742-2-6705	7 Step	6P	16A	5.5kW	48 x 48	2,280.-

8 STEP



842

7802

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S842-2-7802	8 Step	7P	16A	5.5kW	48 x 48	2,850.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

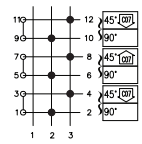
tend CAM SWITCH
สวิตช์มัลติสเต็ป
48x48

สวิตช์มัลติสเต็ป

NEW

3 STEP

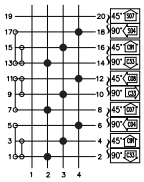


342

3379

Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S342-2-3379	3 Step	3P	16A	5.5kW	48 x 48	1,320.-

4 STEP

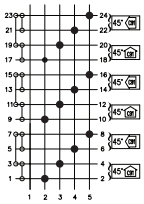


442
5413


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S442-2-5413	4 Step	5P	16A	5.5kW	48 x 48	1,970.-

5 STEP

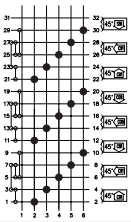


542
6504


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S542-2-6504	5 Step	6P	16A	5.5kW	48 x 48	2,280.-

6 STEP

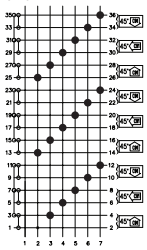


642
8601


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S642-2-8601	6 Step	8P	16A	5.5kW	48 x 48	3,225.-

7 STEP



742
9701


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S742-2-9701	7 Step	9P	16A	5.5kW	48 x 48	3,630.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

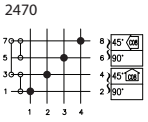
tend CAM SWITCH
สวิตช์มัลติสเต็ป
48x48

สวิตช์มัลติสเต็ป

NEW

4 STEP

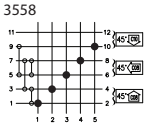


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S441-2-2470	4 Step	2P	16A	5.5kW	48 x 48	915.-

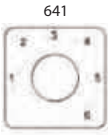
5 STEP

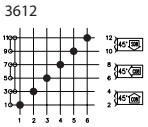


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S541-2-3558	5 Step	3P	16A	5.5kW	48 x 48	1,320.-

6 STEP

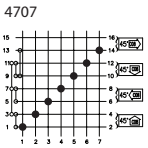





Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S641-2-3612	6 Step	3P	16A	5.5kW	48 x 48	1,320.-

7 STEP

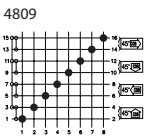


Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S741-2-4707	7 Step	4P	16A	5.5kW	48 x 48	1,650.-

8 STEP



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S841-2-4809	8 Step	4P	16A	5.5kW	48 x 48	1,650.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
สวิตช์มัลติสเต็ป
48x48

สวิตช์มัลติสเต็ป NEW

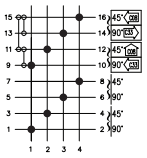
4 STEP



441



4437



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S441-2-4437	4Step	4P	16A	5.5kW	48 x 48	1,650.-

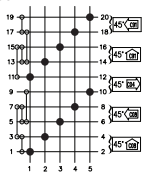
5 STEP



541



5512



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S541-2-5512	5Step	5P	16A	5.5kW	48 x 48	1,970.-

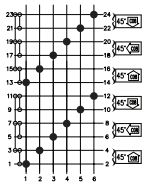
6 STEP



641



6603



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S641-2-6603	6Step	6P	16A	5.5kW	48 x 48	2,280.-

สวิตช์มัลติสเต็ป NEW

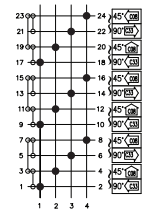
4 STEP



441



6412



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S441-2-6412	4Step	6P	16A	5.5kW	48 x 48	2,280.-

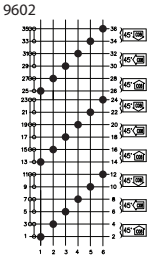
6 STEP



641



9602



Model	Step	Pole	Rated (380V)		Mounting size	Price
			AC1	AC3		
TCS4S641-2-9602	6Step	9P	16A	5.5kW	48 x 48	3,685.-

*สินค้าสามารถเปลี่ยน contact ได้ สอบถามรายละเอียดกับพนักงาน

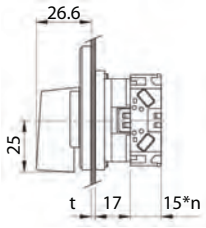
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH

แคมสวิตช์ (รุ่นราคาพิเศษ)

48x48 / 64x64

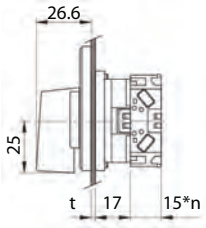




CAM Switch 48 x 48 Series and 64 x 64 Series

Item code				Description	Contact blocks	Amp	Price with short handle
Size	Plate	Amp	Contact				
TCS4S,6S	2xx~4xx	1	1xxx	Short handle,	1 Stack	10A	670.-
TCS4S,6S	2xx~4xx	1	1xxx R	Spring returnshort handle	1 Stack	10A	670.-
TCS4S,6S	2xx~5xx	1	2xxx	Short handle,	2 Stack	10A	825.-
TCS4S,6S	2xx~5xx	1	2xxx R	Spring returnshort handle	2 Stack	10A	825.-
TCS4S,6S	2xx~6xx	1	3xxx	Short handle,	3 Stack	10A	1,180.-
TCS4S,6S	2xx~5xx	1	3xxx R	Spring returnshort handle	3 Stack	10A	1,180.-
TCS4S,6S	2xx~8xx	1	4xxx	Short handle,	4 Stack	10A	1,475.-
TCS4S,6S	2xx~8xx	1	4xxx R	Spring returnshort handle	4 Stack	10A	1,475.-
TCS4S,6S	2xx~8xx	1	5xxx	Short handle,	5 Stack	10A	1,730.-
TCS4S,6S	2xx~8xx	1	5xxx R	Spring returnshort handle	5 Stack	10A	1,730.-
TCS4S,6S	2xx~8xx	1	6xxx	Short handle,	6 Stack	10A	2,015.-
TCS4S,6S	2xx~8xx	1	6xxx R	Spring returnshort handle	6 Stack	10A	2,015.-
TCS4S,6S	2xx~8xx	1	7xxx	Short handle,	7 Stack	10A	2,500.-
TCS4S,6S	2xx~8xx	1	7xxx R	Spring returnshort handle	7 Stack	10A	2,500.-
TCS4S,6S	2xx~8xx	1	8xxx	Short handle,	8 Stack	10A	2,885.-
TCS4S,6S	2xx~8xx	1	8xxx R	Spring returnshort handle	8 Stack	10A	2,885.-

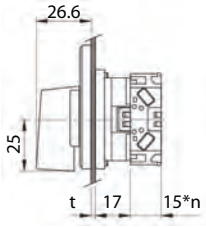




CAM Switch 48 x 48 Series and 64 x 64 Series

Item code				Description	Contact blocks	Amp	Price with short handle
Size	Plate	Amp	Contact				
TCS4S,6S	2xx~4xx	2	1xxx	Short handle,	1 Stack	16A	705.-
TCS4S,6S	2xx~4xx	2	1xxx R	Spring returnshort handle	1 Stack	16A	705.-
TCS4S,6S	2xx~5xx	2	2xxx	Short handle,	2 Stack	16A	915.-
TCS4S,6S	2xx~5xx	2	2xxx R	Spring returnshort handle	2 Stack	16A	915.-
TCS4S,6S	2xx~6xx	2	3xxx	Short handle,	3 Stack	16A	1,320.-
TCS4S,6S	2xx~5xx	2	3xxx R	Spring returnshort handle	3 Stack	16A	1,320.-
TCS4S,6S	2xx~8xx	2	4xxx	Short handle,	4 Stack	16A	1,650.-
TCS4S,6S	2xx~8xx	2	4xxx R	Spring returnshort handle	4 Stack	16A	1,650.-
TCS4S,6S	2xx~8xx	2	5xxx	Short handle,	5 Stack	16A	1,970.-
TCS4S,6S	2xx~8xx	2	5xxx R	Spring returnshort handle	5 Stack	16A	1,970.-
TCS4S,6S	2xx~8xx	2	6xxx	Short handle,	6 Stack	16A	2,280.-
TCS4S,6S	2xx~8xx	2	6xxx R	Spring returnshort handle	6 Stack	16A	2,280.-
TCS4S,6S	2xx~8xx	2	7xxx	Short handle,	7 Stack	16A	2,850.-
TCS4S,6S	2xx~8xx	2	7xxx R	Spring returnshort handle	7 Stack	16A	2,850.-
TCS4S,6S	2xx~8xx	2	8xxx	Short handle,	8 Stack	16A	3,225.-
TCS4S,6S	2xx~8xx	2	8xxx R	Spring returnshort handle	8 Stack	16A	3,225.-





CAM Switch 48 x 48 Series and 64 x 64 Series

Item code				Description	Contact blocks	Amp	Price with short handle
Size	Plate	Amp	Contact				
TCS4S,6S	2xx~4xx	3	1xxx	Short handle,	1 Stack	25A	765.-
TCS4S,6S	2xx~4xx	3	1xxx R	Spring returnshort handle	1 Stack	25A	765.-
TCS4S,6S	2xx~5xx	3	2xxx	Short handle,	2 Stack	25A	1005.-
TCS4S,6S	2xx~5xx	3	2xxx R	Spring returnshort handle	2 Stack	25A	1005.-
TCS4S,6S	2xx~6xx	3	3xxx	Short handle,	3 Stack	25A	1,475.-
TCS4S,6S	2xx~5xx	3	3xxx R	Spring returnshort handle	3 Stack	25A	1,475.-
TCS4S,6S	2xx~8xx	3	4xxx	Short handle,	4 Stack	25A	1,840.-
TCS4S,6S	2xx~8xx	3	4xxx R	Spring returnshort handle	4 Stack	25A	1,840.-
TCS4S,6S	2xx~8xx	3	5xxx	Short handle,	5 Stack	25A	2,200.-
TCS4S,6S	2xx~8xx	3	5xxx R	Spring returnshort handle	5 Stack	25A	2,200.-
TCS4S,6S	2xx~8xx	3	6xxx	Short handle,	6 Stack	25A	2,575.-
TCS4S,6S	2xx~8xx	3	6xxx R	Spring returnshort handle	6 Stack	25A	2,575.-
TCS4S,6S	2xx~8xx	3	7xxx	Short handle,	7 Stack	25A	3,225.-
TCS4S,6S	2xx~8xx	3	7xxx R	Spring returnshort handle	7 Stack	25A	3,225.-
TCS4S,6S	2xx~8xx	3	8xxx	Short handle,	8 Stack	25A	3,675.-
TCS4S,6S	2xx~8xx	3	8xxx R	Spring returnshort handle	8 Stack	25A	3,675.-

บริษัทได้จัดสเปคสินค้าประเภท Cam Switch ไว้โดยเฉพาะ หากท่านต้องการทราบข้อมูลเพิ่มเติมอย่างละเอียดสามารถติดต่อขอรับแคตตาล็อค Cam Switch พร้อมราคาอย่างละเอียดได้ที่พนักงานขายของบริษัท

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend

CAM SWITCH
แคมสวิตช์ (รุ่นราคาพิเศษ)
48x48 / 64x64



สวิทช์เปิด-ปิด (ON-OFF switchs) หน้าปัดสีเหลือง ลูกบิดสีแดง

รุ่น Model	Old type	Position	Contact blocks	Size	Amp	Price with short handle
TCS4SR243-1-3201		2P	3	48x48	10A	650.-
TCS4SR243-2-3201		2P	3	48x48	16A	710.-
TCS4SR243-3-3201		2P	3	48x48	25A	1,145.-
TCS6SR243-1-3201	TCS-301	2P	3	48x48	10A	650.-
TCS6SR243-2-3201		2P	3	48x48	16A	710.-
TCS6SR243-3-3201		2P	3	48x48	25A	1,145.-



สวิทช์สับเปลี่ยน 2 ทาง (ON-OFF-ON switchs) หน้าปัดสีเหลือง ลูกบิดสีแดง

รุ่น Model	Old type	Position	Contact blocks	Size	Amp	Price with short handle
TCS4SR346-1-3301		3P	3	48x48	10A	985.-
TCS4SR346-2-3301		3P	3	48x48	16A	1,040.-
TCS4SR346-3-3301		3P	3	48x48	25A	1,345.-
TCS6SR346-1-3301	TCS-302	3P	3	64x64	10A	1,060.-
TCS6SR346-2-3301		3P	3	64x64	16A	1,100.-
TCS6SR346-3-3301		3P	3	64x64	25A	1,345.-
TCS6S341-1-3328	TCS-303	3P	3	64x64	10A	1,075.-



สวิทช์สับเดินหน้า-ถอยหลัง (Forward reverse switchs) หน้าปัดสีเหลือง ลูกบิดสีแดง

รุ่น Model	Old type	Position	Contact blocks	Size	Amp	Price with short handle
TCS4SR344-1-3317		3P	3	48x48	10A	915.-
TCS4SR344-2-3317		3P	3	48x48	16A	970.-
TCS4SR344-3-3317		3P	3	48x48	25A	1,345.-
TCS6SR344-1-3317		3P	3	64x64	10A	970.-
TCS6SR344-2-3317		3P	3	64x64	16A	1,020.-
TCS6SR344-3-3317		3P	3	64x64	25A	1,345.-



สวิทช์มัลติสเต็ป (multi-step switchs with “OFF”) หน้าปัดสีเหลือง ลูกบิดสีแดง

รุ่น Model		Position	Contact blocks	Size	Amp	Price with short handle
TCS4SR342-1-1303	2STEP	2P	1	48x48	10A	465.-
TCS4SR342-2-1303	2STEP	2P	1	48x48	16A	480.-
TCS4SR342-3-1303	2STEP	2P	1	48x48	25A	605.-
TCS6SR342-1-1303	2STEP	2P	1	64x64	10A	510.-
TCS6SR342-2-1303	2STEP	2P	1	64x64	16A	525.-
TCS6SR342-3-1303	2STEP	2P	1	64x64	25A	705.-
TCS4SR442-1-2418	3STEP	4P	2	48x48	10A	510.-
TCS4SR442-2-2418	3STEP	4P	2	48x48	16A	565.-
TCS4SR442-3-2418	3STEP	4P	2	48x48	25A	770.-
TCS6SR442-1-2418	3STEP	4P	2	64x64	10A	580.-
TXS6SR442-2-2418	3STEP	4P	2	64x64	16A	635.-
TCS6SR442-3-2418	3STEP	4P	2	64x64	25A	840.-
TCS4SR542-1-3511	4STEP	8P	3	48x48	10A	625.-
TCS4SR542-2-3511	4STEP	8P	3	48x48	16A	700.-
TCS4SR542-3-3511	4STEP	8P	3	48x48	25A	1,035.-
TCS6SR542-1-3511	4STEP	8P	3	64x64	10A	705.-
TCS6SR542-2-3511	4STEP	8P	3	64x64	16A	770.-
TCS6SR542-3-3511	4STEP	8P	3	64x64	25A	1,100.-
TCS4SR642-1-3602	5STEP	10P	3	48x48	10A	710.-
TCS4SR642-2-3602	5STEP	10P	3	48x48	16A	785.-
TCS4SR642-3-3602	5STEP	10P	3	48x48	25A	1,100.-
TCS6SR642-1-3602	5STEP	10P	3	64x64	10A	785.-
TCS6SR642-2-3602	5STEP	10P	3	64x64	16A	820.-
TCS6SR642-3-3602	5STEP	10P	3	64x64	25A	1,180.-







*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x48 / 64x64

MODEL DESIGNATION

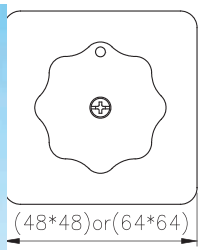
T AS33 - 6 1 3
1 2 3 4

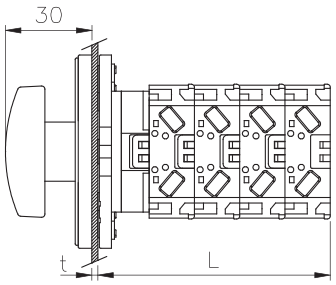
Designation	Signal	Description
1.Control type	AS33	AS33 (3Ø3W)
	AS34	AS34 (3Ø4W)
	VS33	VS33 (3Ø3W)
	VS34	VS34 (3Ø4W)
	VS334	VS33 (3Ø3W)/VS34 (3Ø4W)
	AV33	VS33 (3Ø3W)/AS33 (3Ø3W)

Designation	Signal	Description
2.Size	4	48 * 48
	6	64 * 64
3.Capacity	1	10A
	2	16A
	3	25A
4.Nos.of	None	2CT
	3	3CT

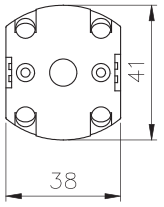
DIMENSIONS







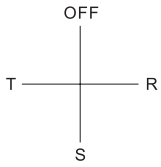
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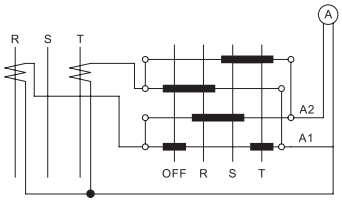


Stack	L
One stack	32
Two stacks	47
Three stacks	62
Four stacks	77
Five stacks	92
Six stacks	107

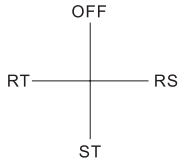
PLATE, CONTACT AND WIRING DIAGRAM

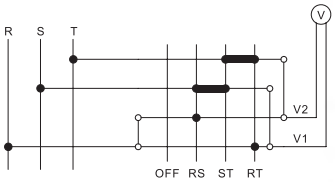
TAS33-□□
AS(3Ø3W 2CT)



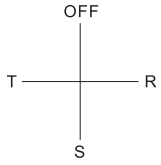


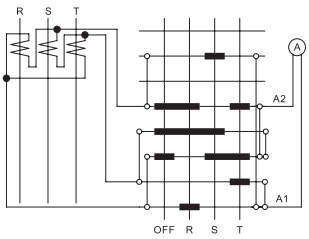
TVS33-□□
VS(3Ø3W)



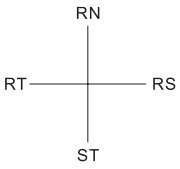


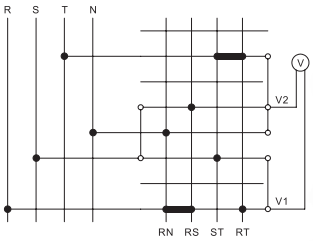
TAS33-□□3
AS(3Ø3W 3CT)



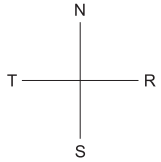


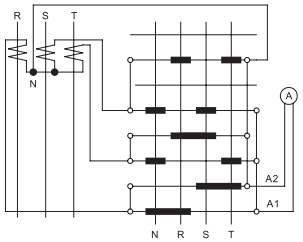
TVS34-□□
VS(3Ø4W)



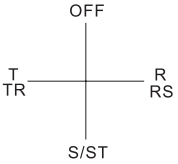


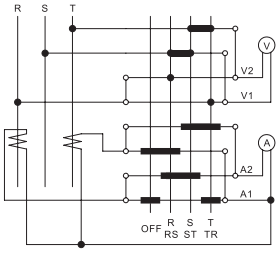
TAS34-□□3
AS(3Ø4W 3CT)



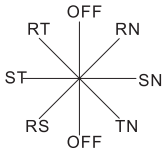


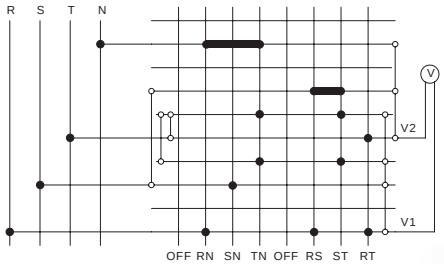
TVS33-□□
AS(3Ø3W 2CT)
VS(3Ø3W)





TVS334-□□
VS(3Ø3W)
VS(3Ø4W)





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x60 / 64x80

MODEL DESIGNATION

T AS33 - 713

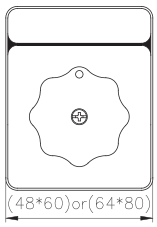
① ② ③ ④

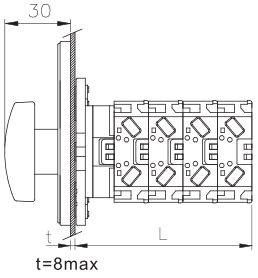
Designation	Signal	Description
1.Control type	AS33	AS33 (3Ø3W)
	AS34	AS34 (3Ø4W)
	VS33	VS33 (3Ø3W)
	VS34	VS34 (3Ø4W)
	VS334	VS334 (3Ø3W)/ VS34 (3Ø4W)
	AV33	AV33 (3Ø3W)/ AS34 (3Ø3W)

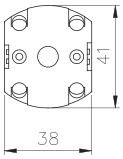
Designation	Signal	Description
2.Size	5	48*60
	6	64*80
3.Capacity	1	10A
	2	16A
	3	25A
4.Nos.of	None	2CT
	3	3CT

DIMENSIONS





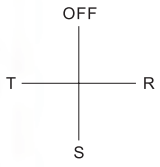


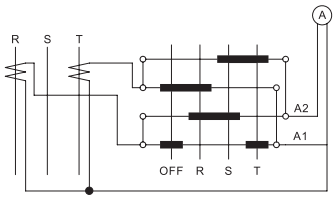


Stack	L
One stack	32
Two stacks	47
Three stacks	62
Four stacks	77
Five stacks	92
Six stacks	107

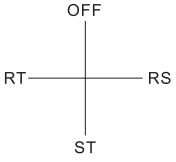
PLATE, CONTACT AND WIRING DIAGRAM

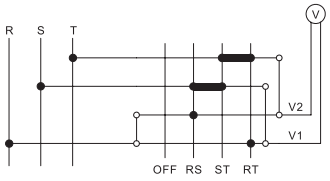
TAS33-□□
AS(3Ø3W 2CT)



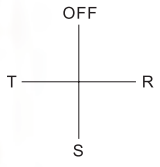


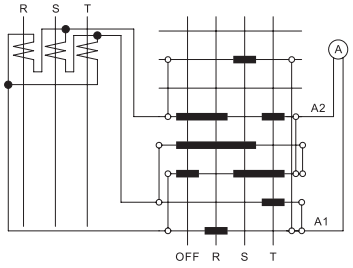
TVS33-□□
VS(3Ø3W)



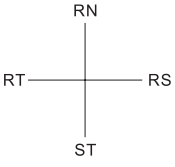


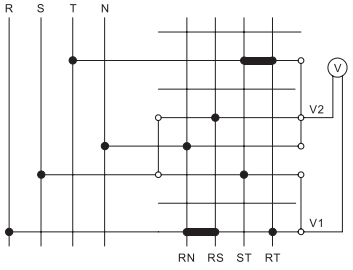
TAS33-□□3
AS(3Ø3W 3CT)



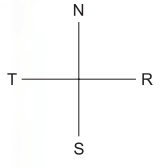


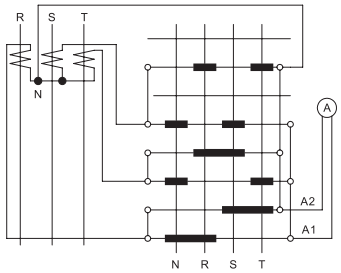
TVS34-□□
VS(3Ø4W)



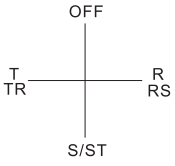


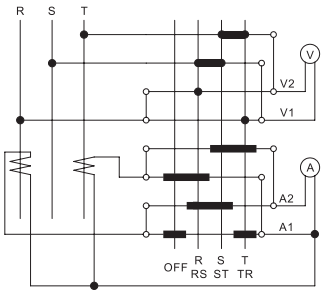
TAS34-□□3
AS(3Ø4W 3CT)



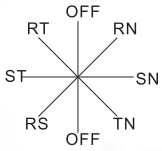


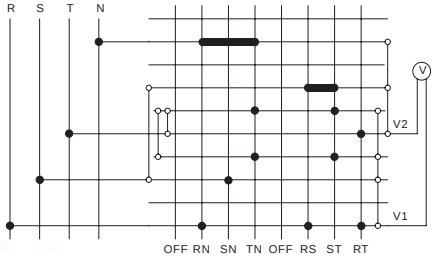
TVS33-□□
AS(3Ø3W 2CT)
VS(3Ø3W)





TVS334-□□
VS(3Ø3W)
VS(3Ø4W)





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x48 / 48x60 / 64x64 / 64x80

MODEL DESIGNATION

T **AS33** - **7** **1** **3**

① ② ③ ④

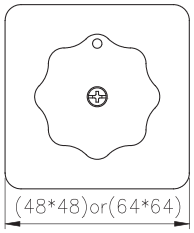
Designation	Signal	Description
1.Control type	AS33	AS33(3Ø3W)
	AS34	AS34(3Ø4W)
	VS33	VS33(3Ø3W)
	VS34	VS34(3Ø4W)
	VS334	VS33(3Ø3W)/VS34(3Ø4W)
	AV33	AV33(3Ø3W),AS33(3Ø3W)

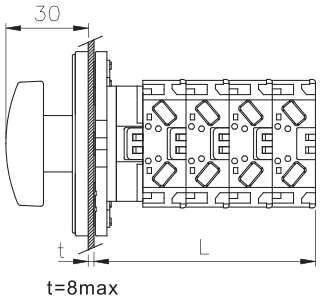
Designation	Signal	Description
2.Size	4	48*48
	5	48*60
	6	64*64
	7	64*80
3.Capacity	1	10A
	2	16A
	3	25A
4.Nos.of	None	2CT
	3	3CT

- All these series of switches are fitted with short handle.
- 2CT or 3CT can be used for TAS33 series.

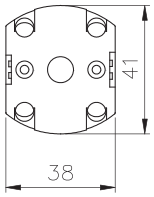
DIMENSION







t=8max

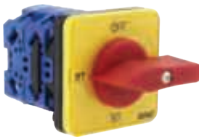


Stack	L
One Stack	32
Two Stacks	47
Three Stacks	62
Four Stacks	77
Five Stacks	92
Six Stacks	107

รุ่นนิยม







หน้าปัดสีเหลือง ลูกบิดสีแดง (ซีเล็คเตอร์โวลต์ แอมป์)

Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-4R1S	496	Amp selector 48x48 mm (3Ø3W2CT)	2 Stacks	10A	450.-
TAS33-6R1S	496	Amp selector 64x64 mm (3Ø3W2CT)	2 Stacks	10A	450.-
TAS33A-4R1S	496	Amp selector 48x48 mm (3Ø3W3CT)	3 Stacks	10A	530.-
TAS33A-6R1S	496	Amp selector 64x64 mm (3Ø3W3CT)	3 Stacks	10A	530.-
TVS33-4R1S	494	Volt selector 48x48 mm (3Ø3W)	2 Stacks	10A	445.-
TVS33-6R1S	494	Volt selector 64x64 mm (3Ø3W)	2 Stacks	10A	445.-
TVS334A-4R1S	843	Volt selector 48x48 mm (3Ø3W & 3Ø4W)	3 Stacks	10A	530.-
TAS334A-6R1S	843	Volt selector 64x64 mm (3Ø3W & 3Ø4W)	3 Stacks	10A	530.-

รุ่นนิยม







Voltmeter / Ammeter cam switch (48x48 and 64x64)

หน้าปัดสีเหลือง ลูกบิดสีแดง (ซีเล็คเตอร์โวลต์ แอมป์)

Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-5R1S	496A	Amp selector 48x48 mm (3 Ø3W2CT)	2 Stacks	10A	480.-
TAS33-7R1S	496A	Amp selector 64x64 mm (3 Ø3W2CT)	2 Stacks	10A	480.-
TAS33A-5R1S	496A	Amp selector 48x48 mm (3 Ø3W3CT)	3 Stacks	10A	560.-
TAS33A-7R1S	496A	Amp selector 64x64 mm (3 Ø3W3CT)	3 Stacks	10A	560.-
TVS33-5R1S	494B	Volt selector 48x48 mm (3 Ø3W)	2 Stacks	10A	480.-
TVS33-7R1S	494B	Volt selector 64x64 mm (3 Ø3W)	2 Stacks	10A	480.-
TVS334A-5R1S	843B	Volt selector 48x48 mm (3 Ø3W & 3 Ø4W)	3 Stacks	10A	560.-
TAS334A-7R1S	843B	Volt selector 64x64 mm (3 Ø3W & 3 Ø4W)	3 Stacks	10A	560.-

* หากต้องการเปลี่ยนเป็น Long handle (ลูกบิดก้านยาว) หรือ Octagonal handle (ลูกบิดหัวกลม) สอบถามราคาเพิ่มเติมได้ที่พนักงานขายของบริษัท
** หากต้องการหน้าปัดสีขาว ลูกบิดสีดำสามารถแจ้งเปลี่ยนได้

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x48 / 48x60 / 64x64 / 64x80

MODEL DESIGNATION

T AS33 - 7 1 3

① ② ③ ④

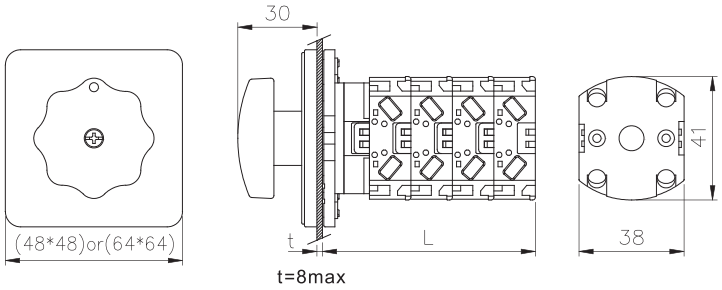
Designation	Signal	Description
1.Control type	AS33	AS33(3Ø3W)
	AS34	AS34(3Ø4W)
	VS33	VS33(3Ø3W)
	VS34	VS34(3Ø4W)
	VS334	VS33(3Ø3W)/VS34(3Ø4W)
	AV33	AV33(3Ø3W),AS33(3Ø3W)

Designation	Signal	Description
2.Size	4	48*48
	5	48*60
	6	64*64
	7	64*80
3.Capacity	1	10A
	2	16A
	3	25A
4.Nos.of	None	2CT
	3	3CT

- All these series of switches are fitted with short handle.
- 2CT or 3CT can be used for TAS33 series.

DIMENSION





Stack	L
One Stack	32
Two Stacks	47
Three Stacks	62
Four Stacks	77
Five Stacks	92
Six Stacks	107





Voltmeter / Ammeter cam switch (48x48 and 64x64)

หน้าปัดสีเหลือง ลูกบิดสีแดง (ซีเล็คเตอร์โวลต์ แอมป์)

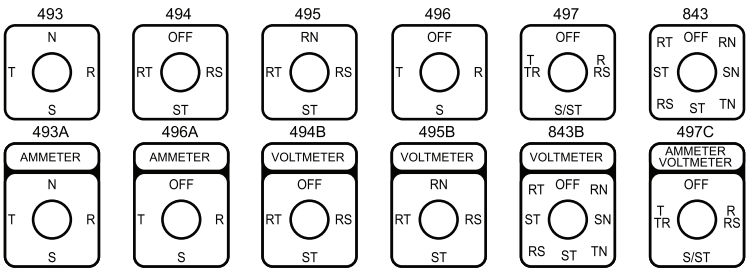
Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-4R1S	496	Amp selector 48x48 mm (3Ø3W2CT)	2 stacks	10A	450.-
TAS33-6R1S	496	Amp selector 64x64 mm (3Ø3W2CT)	2 stacks	10A	450.-
TAS33A-4R1S	496	Amp selector 48x48 mm (3Ø3W3CT)	3 stacks	10A	530.-
TAS33A-6R1S	496	Amp selector 64x64 mm (3Ø3W3CT)	3 stacks	10A	530.-
TAS33-4R13S	496	Amp selector 48x48 mm (3Ø3W3CT)	4 stacks	10A	605.-
TAS33-6R13S	496	Amp selector 64x64 mm (3Ø3W3CT)	4 stacks	10A	605.-
TAS34A-4R1S	493	Amp selector 48x48 mm (3Ø4W3CT)	4 stacks	10A	605.-
TAS34-6R1S	493	Amp selector 64x64 mm (3Ø4W3CT)	4 stacks	10A	605.-
TVS33-4R1S	494	Volt selector 48x48 (3Ø3W)	2 stacks	10A	445.-
TVS33-6R1S	494	Volt selector 64x64 (3Ø3W)	2 stacks	10A	445.-
TVS334A-4R1S	843	Volt selector 48x48 (3Ø3W&3Ø4W)	3 stacks	10A	530.-
TVS334A-6R1S	843	Volt selector 64x64 (3Ø3W&3Ø4W)	3 stacks	10A	530.-
TVS334-4R1S	843	Volt selector 48x48 (3Ø3W&3Ø4W)	4 stacks	10A	735.-
TVS334-6R1S	843	Volt selector 64x64 (3Ø3W&3Ø4W)	4 stacks	10A	735.-
TVS34-4R1S	495	Volt selector 48x48 (3Ø4W)	4 stacks	10A	605.-
TVS34-6R1S	495	Volt selector 64x64 (3Ø4W)	4 stacks	10A	605.-
TAV33-4R1S	497	Amp selector 48x48 (3Ø3W 2CT) & Volt selector 48x48 (3Ø3W)	4 stacks	10A	605.-
TAV33-6R1S	497	Amp selector 64x64 (3Ø3W 2CT) & Volt selector 64x64 (3Ø3W)	4 stacks	10A	605.-

หมายเหตุ

TVS 334 และ TVS334A สามารถเลือกใช้ได้ทั้ง 3 Ø3W หรือ 3 Ø4W ในตัวเดียวกัน TAV33 สามารถใช้ได้ Amp selector (3 Ø3W2CT) และ Volt selector (3 Ø3W) ในตัวเดียวกัน

* หากต้องการเปลี่ยนเป็น Long handle (ลูกบิดก้านยาว) หรือ Octagonal handle (ลูกบิดหัวกลม) สอบถามราคาเพิ่มเติมได้ที่พนักงานขายของบริษัท

** หากต้องการหน้าปัดสีขาว ลูกบิดสีดำสามารถแจ้งเปลี่ยนได้



VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x48 / 48x60 / 64x64 / 64x80

(ซีเล็คเตอร์โวลต์ แอมป์)

Voltmeter / Ammeter cam switch (48x60 and 64x80)

หน้าปัดสีเหลือง
ลูกบิดสีแดง





Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-5R1S	496A	Amp Selector 48x60 mm (3 Ø3W2CT)	2 stacks	10A	480.-
TAS33-7R1S	496A	Amp Selector 64x80 mm (3 Ø3W2CT)	2 stacks	10A	480.-
TAS33A-5R1S	496A	Amp Selector 48x60 mm (3 Ø3W2CT)	3 stacks	10A	560.-
TAS33A-7R1S	496A	Amp Selector 64x80 mm (3 Ø3W2CT)	3 stacks	10A	560.-
TAS33-5R13S	496A	Amp Selector 48x60 mm (3 Ø3W2CT)	4 stacks	10A	635.-
TAS33-7R13S	496A	Amp Selector 64x80 mm (3 Ø3W2CT)	4 stacks	10A	635.-
TAS34A-5R1S	493A	Amp Selector 48x60 mm (3 Ø3W2CT)	4 stacks	10A	635.-
TAS34-7R1S	493A	Amp Selector 64x80 mm (3 Ø3W2CT)	4 stacks	10A	635.-
TVS33-5R1S	494B	Volt Selector 48x60 mm (3 Ø3W)	2 stacks	10A	480.-
TVS33-7R1S	494B	Volt Selector 64x80 mm (3 Ø3W)	2 stacks	10A	480.-
TVS334A-5R1S	843B	Volt Selector 48x60 mm (3 Ø3W)	3 stacks	10A	560.-
TVS334A-7R1S	843B	Volt Selector 48x60 mm (3 Ø3W)	3 stacks	10A	560.-
TVS334-5R1S	843B	Volt Selector 48x60 mm (3 Ø3W)	4 stacks	10A	755.-
TVS334-7R1S	843B	Volt Selector 48x60 mm (3 Ø3W)	4 stacks	10A	755.-
TVS34-5R1S	495B	Volt Selector 48x60 mm (3 Ø3W)	4 stacks	10A	635.-
TVS34-7R1S	495B	Volt Selector 48x60 mm (3 Ø3W)	4 stacks	10A	635.-
TAV33-5R1S	497C	Amp Selector 48x60 (3 Ø3W2CT)& Volt Selector 48x60 (3 Ø3W)	4 stacks	10A	635.-
TAV33-7R1S	497C	Amp Selector 48x60 (3 Ø3W2CT)& Volt Selector 48x60 (3 Ø3W)	4 stacks	10A	635.-

หน้าปัดสีเหลือง
ลูกบิดสีแดง
(ซีเล็คเตอร์โวลต์ แอมป์)

Voltmeter / Ammeter cam switch (48x48 and 64x64)





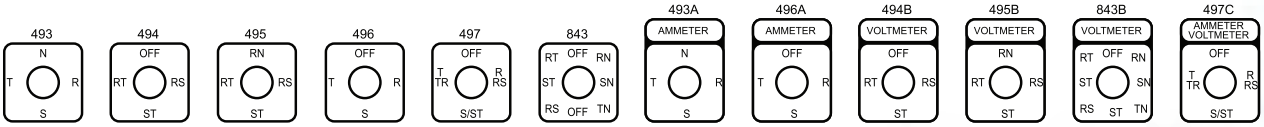
Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-4R2S	496	Amp Selector 48x48 mm (3 Ø3W2CT)	2 stacks	16A	510.-
TAS33-6R2S	496	Amp Selector 64x64 mm (3 Ø3W2CT)	2 stacks	16A	510.-
TAS33A-4R2S	496	Amp Selector 48x48 mm (3 Ø3W2CT)	3 stacks	16A	620.-
TAS33A-6R2S	496	Amp Selector 64x64 mm (3 Ø3W2CT)	3 stacks	16A	620.-
TAS33-4R23S	496	Amp Selector 48x48 mm (3 Ø3W2CT)	4 stacks	16A	735.-
TAS33-6R23S	496	Amp Selector 64x64 mm (3 Ø3W2CT)	4 stacks	16A	735.-
TAS34A-4R2S	493	Amp Selector 48x48 mm (3 Ø3W2CT)	4 stacks	16A	735.-
TAS34-6R2S	493	Amp Selector 64x64 mm (3 Ø3W2CT)	4 stacks	16A	735.-
TVS33-4R2S	494	Volt Selector 48x48 mm (3 Ø3W)	2 stacks	16A	510.-
TVS33-6R2S	494	Volt Selector 64x64 mm (3 Ø3W)	2 stacks	16A	510.-
TVS334A-4R2S	843	Volt Selector 48x48 mm (3 Ø3W)	3 stacks	16A	620.-
TVS334A-6R2S	843	Volt Selector 48x64 mm (3 Ø3W)	3 stacks	16A	620.-
TVS334-4R2S	843	Volt Selector 48x48 mm (3 Ø3W)	4 stacks	16A	875.-
TVS334-6R2S	843	Volt Selector 48x64 mm (3 Ø3W)	4 stacks	16A	875.-
TVS34-4R2S	495	Volt Selector 48x480 mm (3 Ø3W)	4 stacks	16A	735.-
TVS34-6R2S	495	Volt Selector 48x64 mm (3 Ø3W)	4 stacks	16A	735.-
TAV33-4R2S	497	Amp Selector 48x48 mm(3 Ø 3W2CT)& Volt Selector 48x48 mm(3 Ø 3W)	4 stacks	16A	735.-
TAV33-6R2S	497	Amp Selector 48x64 mm(3 Ø 3W2CT)& Volt Selector 48x64 mm(3 Ø 3W)	4 stacks	16A	735.-

หมายเหตุ

TVS 334 และ TVS334A สามารถเลือกใช้ได้ทั้ง 3 Ø3W หรือ 3 Ø4W ในตัวเดียวกัน TAV33 สามารถใช้ได้ Amp selector (3 Ø3W2CT) และ Volt selector (3 Ø3W) ในตัวเดียวกัน

* หากต้องการเปลี่ยนเป็น Long handle (ลูกบิดก้านยาว) หรือ Octagonal handle (ลูกบิดหัวกลม) สอบถามราคาเพิ่มเติมได้ที่พนักงานขายของบริษัท

** หากต้องการหน้าปัดสีขาว ลูกบิดสีดำสามารถแจ้งเปลี่ยนได้



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x48 / 48x60 / 64x64 / 64x80

(ซีเล็คเตอร์โวลต์ แอมป์)

Voltmeter / Ammeter cam switch (48x60 and 64x80)

หน้าปัดสีเหลือง
ลูกบิดสีแดง





Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-5R2S	496A	Amp Selector 48x60 mm (3 Ø3W2CT)	2 stacks	16A	545.-
TAS33-7R2S	496A	Amp Selector 64x80 mm (3 Ø3W2CT)	2 stacks	16A	545.-
TAS33A-5R2S	496A	Amp Selector 48x60 mm (3 Ø3W2CT)	3 stacks	16A	650.-
TAS33A-7R2S	496A	Amp Selector 64x80 mm (3 Ø3W2CT)	3 stacks	16A	650.-
TAS33-5R23S	496A	Amp Selector 48x60 mm (3 Ø3W3CT)	4 stacks	16A	755.-
TAS33-7R23S	496A	Amp Selector 64x80 mm (3 Ø3W3CT)	4 stacks	16A	755.-
TAS34A-5R2S	493A	Amp Selector 48x60 mm (3 Ø3W3CT)	4 stacks	16A	755.-
TAS34-7R2S	493A	Amp Selector 64x80 mm (3 Ø3W3CT)	4 stacks	16A	755.-
TVS33-5R2S	494B	Volt Selector 48x60 mm (3 Ø3W)	2 stacks	16A	545.-
TVS33-7R2S	494B	Volt Selector 64x80 mm (3 Ø3W)	2 stacks	16A	545.-
TVS334A-5R2S	843B	Volt Selector 48x60 mm (3 Ø3W&3 Ø4W)	3 stacks	16A	650.-
TVS334A-7R2S	843B	Volt Selector 48x60 mm (3 Ø3W&3 Ø4W)	3 stacks	16A	650.-
TVS334-5R2S	843B	Volt Selector 48x60 mm (3 Ø3W&3 Ø4W)	4 stacks	16A	910.-
TVS334-7R2S	843B	Volt Selector 48x60 mm (3 Ø3W&3 Ø4W)	4 stacks	16A	910.-
TVS34-5R2S	495B	Volt Selector 48x60 mm (3 Ø4W)	4 stacks	16A	755.-
TVS34-7R2S	495B	Volt Selector 48x60 mm (3 Ø4W)	4 stacks	16A	755.-
TAV33-5R2S	497C	Amp Selector 48x60 mm (3 Ø3W2CT)& Volt Selector 48x60 mm (3 Ø 3W)	4 stacks	16A	755.-
TAV33-7R2S	497C	Amp Selector 48x60 mm (3 Ø3W2CT)& Volt Selector 48x60 mm (3 Ø3W)	4 stacks	16A	755.-

Voltmeter / Ammeter cam switch (48x48 and 64x64)

หน้าปัดสีเหลือง
ลูกบิดสีแดง
(ซีเล็คเตอร์โวลต์ แอมป์)





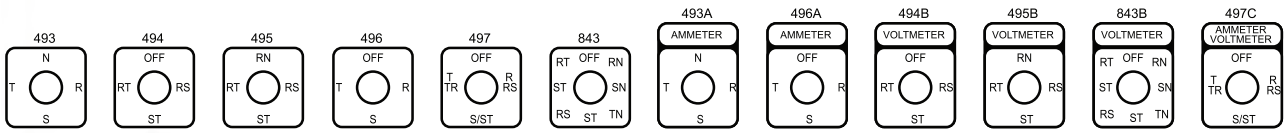
Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-4R3S	496	Amp Selector 48x48 mm (3 Ø3W2CT)	2 stacks	25A	595.-
TAS33-6R3S	496	Amp Selector 64x64 mm (3 Ø3W2CT)	2 stacks	25A	595.-
TAS33A-4R3S	496	Amp Selector 48x48 mm (3 Ø3W2CT)	3 stacks	25A	715.-
TAS33A-6R3S	496	Amp Selector 64x64 mm (3 Ø3W2CT)	3 stacks	25A	715.-
TAS33-4R33S	496	Amp Selector 48x48 mm (3 Ø3W3CT)	4 stacks	25A	840.-
TAS33-6R33S	496	Amp Selector 64x64 mm (3 Ø3W3CT)	4 stacks	25A	840.-
TAS34A-4R3S	493	Amp Selector 48x48 mm (3 Ø3W3CT)	4 stacks	25A	840.-
TAS34-6R3S	493	Amp Selector 64x64 mm (3 Ø3W3CT)	4 stacks	25A	840.-
TVS33-4R3S	494	Volt Selector 48x48 mm (3 Ø3W)	2 stacks	25A	595.-
TVS33-6R3S	494	Volt Selector 64x64 mm (3 Ø3W)	2 stacks	25A	595.-
TVS334A-4R3S	843	Volt Selector 48x48 mm (3 Ø3W&3 Ø4W)	3 stacks	25A	715.-
TVS334A-6R3S	843	Volt Selector 64x64 mm (3 Ø3W&3 Ø4W)	3 stacks	25A	715.-
TVS334-4R3S	843	Volt Selector 48x48 mm (3 Ø3W&3 Ø4W)	4 stacks	25A	1,005.-
TVS334-6R3S	843	Volt Selector 64x64 mm (3 Ø3W&3 Ø4W)	4 stacks	25A	1,005.-
TVS34-4R3S	495	Volt Selector 48x48 mm (3 Ø4W)	4 stacks	25A	840.-
TVS34-6R3S	495	Volt Selector 64x64 mm (3 Ø4W)	4 stacks	25A	840.-
TAV33-4R3S	497	Amp Selector 48x48 mm (3 Ø 3W2CT)& Volt Selector 48x48 mm (3 Ø 3W)	4 stacks	25A	840.-
TAV33-6R3S	497	Amp Selector 64x64 mm (3 Ø 3W2CT)& Volt Selector 64x64 mm (3 Ø 3W)	4 stacks	25A	840.-

หมายเหตุ

TVS 334 และ TVS334A สามารถเลือกใช้ได้ทั้ง 3 Ø3W หรือ 3 Ø4W ในตัวเดียวกัน TAV33 สามารถใช้ได้ Amp selector (3 Ø3W2CT) และ Volt selector (3 Ø3W) ในตัวเดียวกัน

* หากต้องการเปลี่ยนเป็น Long handle (ลูกบิดก้านยาว) หรือ Octagonal handle (ลูกบิดหัวกลม) สอบถามราคาเพิ่มเติมได้ที่พนักงานขายของบริษัท

** หากต้องการหน้าปัดสีขาว ลูกบิดสีดำสามารถแจ้งเปลี่ยนได้



VOLTMETER AND AMMETER CAM SWITCH

โวลต์มิเตอร์ และแอมมิเตอร์แคมสวิตช์

48x48 / 48x60 / 64x64 / 64x80

หน้าปัดสีเหลือง
ลูกบิดสีแดง





(ซีเล็คเตอร์โวลต์ แอมป์)
Voltmeter / Ammeter cam switch (48x60 and 64x80)

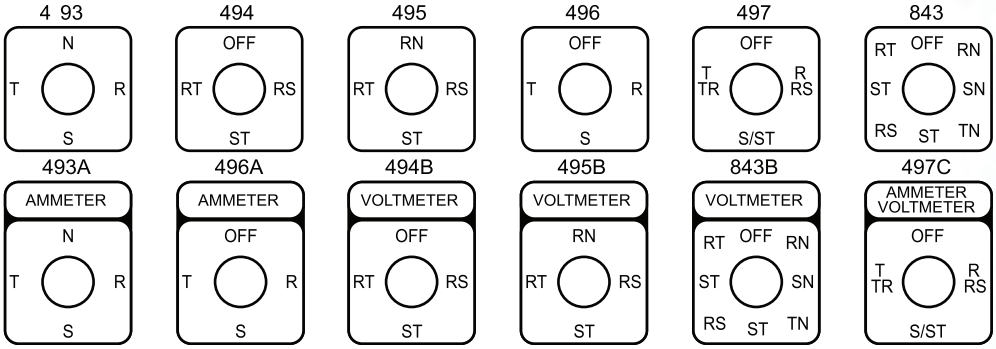
Item no.		Description	Contact blocks	Amp	Price with short handle
Size	Plate				
TAS33-5R3S	496A	Amp selector 48x60 mm (3 Ø3W2CT)	2 Stacks	25A	620.-
TAS33-7R3S	496A	Amp selector 64x80 mm (3 Ø3W2CT)	2 Stacks	25A	620.-
TAS33A-5R3S	496A	Amp selector 48x60 mm (3 Ø3W2CT)	3 Stacks	25A	745.-
TAS33A-7R3S	496A	Amp selector 64x80 mm (3 Ø3W2CT)	3 Stacks	25A	745.-
TAS33-5R33S	496A	Amp selector 48x60 mm (3 Ø3W2CT)	4 Stacks	25A	865.-
TAS33-7R33S	496A	Amp selector 64x80 mm (3 Ø3W2CT)	4 Stacks	25A	865.-
TAS34-5R3S	493A	Amp selector 48x60 mm (3 Ø3W2CT)	4 Stacks	25A	865.-
TAS34-7R3S	493A	Amp selector 64x80 mm (3 Ø3W2CT)	4 Stacks	25A	865.-
TVS33-5R3S	494B	Volt selector 48x60 (3 Ø3W)	2 Stacks	25A	620.-
TVS33-7R3S	494B	Volt selector 64x80 (3 Ø3W)	2 Stacks	25A	620.-
TVS334A-5R3S	843B	Volt selector 48x60 (3 Ø3W&3 Ø4W)	3 Stacks	25A	745.-
TVS334A-7R3S	843B	Volt selector 48x60 (3 Ø3W&3 Ø4W)	3 Stacks	25A	745.-
TVS334-5R3S	843B	Volt selector 64x80 (3 Ø3W&3 Ø4W)	4 Stacks	25A	1,035.-
TVS334-7R3S	843B	Volt selector 64x80 (3 Ø3W&3 Ø4W)	4 Stacks	25A	1,035.-
TVS34A-5R3S	495B	Volt selector 48x60 (3 Ø4W)	4 Stacks	25A	865.-
TVS34A-7R3S	495B	Volt selector 64x80 (3 Ø4W)	4 Stacks	25A	865.-
TAV33-5R3S	497C	Amp selector 48x60 (3 Ø3W2CT)& Volt selector 48x60 (3 Ø3W)	4 Stacks	25A	865.-
TAV33-7R3S	497C	Amp selector 64x80 (3 Ø3W2CT)& Volt selector 64x80 (3 Ø3W)	4 Stacks	25A	865.-

หมายเหตุ

TVS 334 และ TVS334A สามารถเลือกใช้ได้ทั้ง 3 Ø3W หรือ 3 Ø4W ในตัวเดียวกัน TAV33 สามารถใช้ได้ Amp selector (3 Ø3W2CT) และ Volt selector (3 Ø3W) ในตัวเดียวกัน

* หากต้องการเปลี่ยนเป็น Long handle (ลูกบิดก้านยาว) หรือ Octagonal handle (ลูกบิดหัวกลม) สอบถามราคาเพิ่มเติมได้ที่พนักงานขายของบริษัท

** หากต้องการหน้าปัดสีขาว ลูกบิดสีดำสามารถแจ้งเปลี่ยนได้





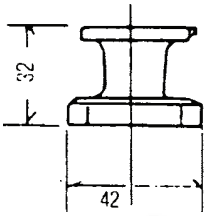
725.-

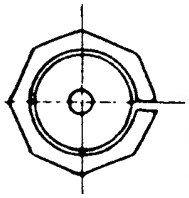
VOLT SELECTOR SWITCH

TYPE TVS-33	3	3W-VS@
TYPE TVS-34	3	4W-VS@

AMP SELECTOR SWITCH

TYPE TAS-33	3	3W-AS@
TYPE TAS-34	3	4W-AS@





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH

แคมสวิตช์

Ø22 / Ø25 / Ø30

FEATURE



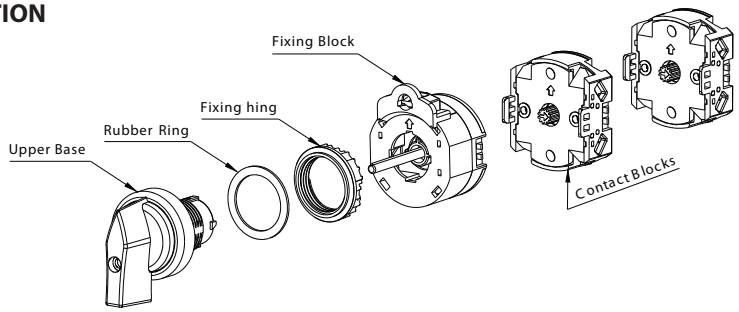
- The upper and lower bases of Ø22, Ø25, and Ø30 series can be push-button assembled or disassembled as per our patent. Upper base, fixed base and contact are three detachable parts.
- Unique modular design of contact blocks keeps internal parts from falling apart when contact blocks are disassembled or replaced.
- Can assemble or disassemble contact blocks to suit for various models yet without risking excessive stock.
- Contact blocks can be added click-on easily, no need to unscrew.
- Connecting screws are fastened from the back rather than normally from the side. It makes wiring easier.
- A special design to keep connecting terminals and screws in the contact blocks can prevent users from electric shocking.
- All the connecting pieces of terminals are covered to avoid from electric shocking.
- Capacities are differentiated by colors of contact blocks: blue for 10A: gray for 16A and black for 25A.

SPECIFICATIONS

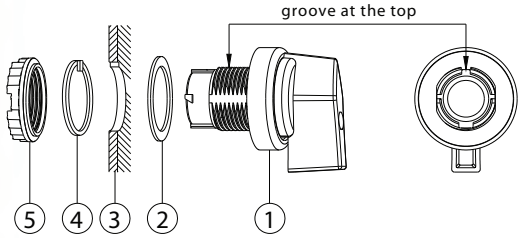
Capacity / voltage	AC-3 (kw)		AC-23 (kw)		AC-21A Iu=Ith	Rated voltage	AC-3 (HP)		Motor load
	3 ph.	1 ph.	3 ph.	1 ph.			3 ph.	1 ph.	
220V - 240V	1.5	0.55	1.8	0.75	10A	120V	0.75	0.33	10A
380V - 440V	2.2	0.75	3	1.1		240V	1	0.75	
660V - 690V	2.2	0.75	3	1.1					
220V - 240V	3	1.5	4	2.2	16A	120V	1.5	0.5	16A
380V - 440V	5.5	2.2	7	3		240V	3	1.5	
660V - 690V	5.5	2.2	7	3					
220V - 240V	4	3	5.5	3	25A	120V	3	1.5	25A
380V - 440V	7.5	3.7	11	5.5		240V	7.5	3	
660V - 690V	7.5	3.7	11	5.5		480V	10	5	

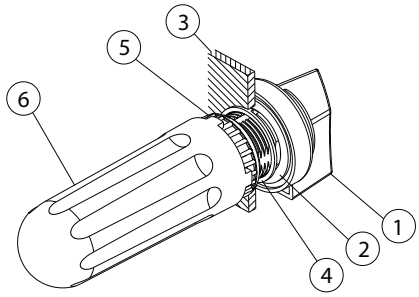
IEC 60947-3, EN 60947-3 VDE 0660 part 107 HD A300 UL 77B7

CONFIGURATION



MOUNTING METHOD





1	2	3	4	5	6
Upper base	Rubber ring	Panel	Stop ring	Fixing ring	Fixing tool

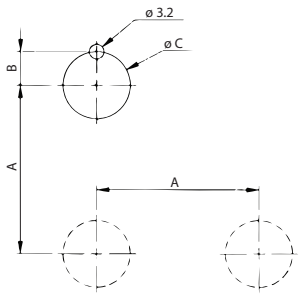
- Install the operating head and rubber ring through the front panel and tighten fixing ring with fixing tool.

tend CAM SWITCH

แคมสวิตช์

Ø22 / Ø25 / Ø30

■ PANEL CUT-OUT

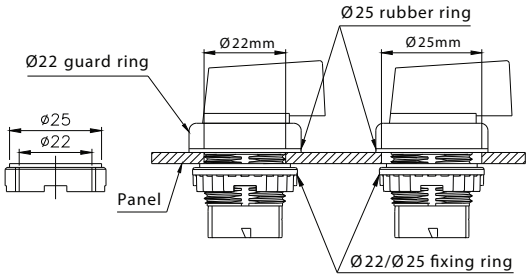


● DIMENSIONS (mm)

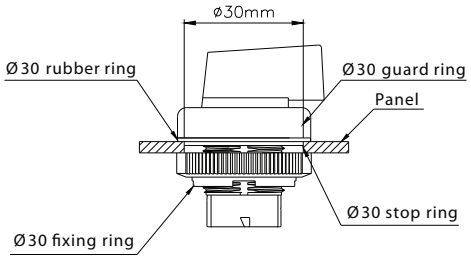
Designation	Ø22	Ø25	Ø30
A	60 min		
B	11.2	12.7	15.2
C	22.4	25.4	30.4

■ Ø 22 mm/ Ø 25 mm series are the same dimensions with common fixing ring.

- **The assembly method for Ø 22/ Ø 25 series**

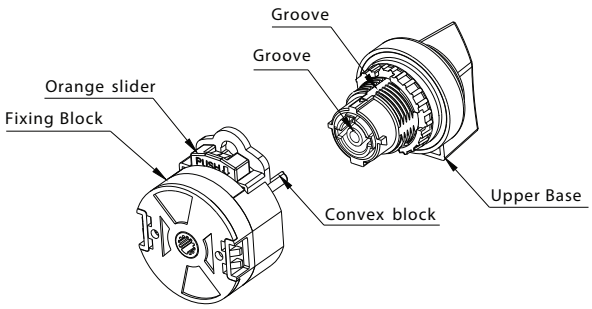


- **The assembly method for Ø 30 series**



■ ASSEMBLY INSTRUCTION

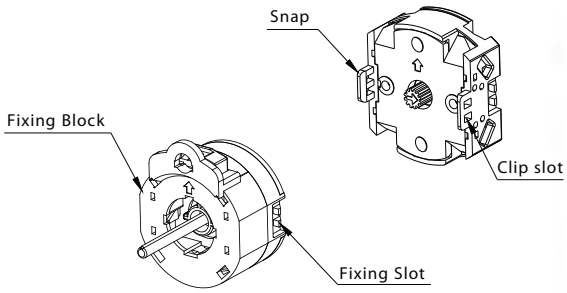
- **Assembly and disassembly of fixing block with upper base**



Assembly :
Align the fixing slot on the fixing block to clip slot on the upper base and push them together.

Disassembly :
Place downward by hand or use flat screw-driver to plush down the orange button thru the hole on top of the fixing block.

- **Assembly and disassembly of fixing block with contact block**



Assembly :
Align the fixing slot on the fixing block to clip slot on the contact block.

Disassembly :
Use flat screwdriver toward fixing slot to lift up clip and snap for disassembly.

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์
Ø22 / Ø25 / Ø30

- **Before placing an order for finished products, please refer to the explannation of model numbers shown in this page**

- **MODEL DESIGNATION (2-3 positions)**

TCS 2 K 4 5 - 2 2209 A
(1) (2) (3) (4) (5) (6) (7)

Designation	Signal	Description
1.Mounting hole	2	22 mm / 25 mm
	3	30 mm
2.Type	S	Knob operator
	K	Key operator
3.Positions	1	45° 2-Positions
	2	90° 2-Positions
	3	45° 2-Positions spring return from right
	4	45° 3-Positions
	5	90° 3-Positions
	6	45° 3-Positions spring return from right

Designation	Signal	Description		
4.Key with drawable (only key operator)	1	2-Positions	0.1 Key with-drawable	
	2		0 Key with-drawable	
	3		1 Key with-drawable	
	4	3-Positions	0.1, 2 Key with-drawable	
	5		0 Key with-drawable	
	6	3-Positions	0.1, 2 Key with-drawable	
	7		0 Key with-drawable	
5.Capacity	1	10 A		
	2	16 A		
	3	25 A		
6.Wiring diagram				
7.Key number	A	3313	E	3131
	B	1313	F	3133
	C	1331	G	3212
	D	3113	H	3331

- **MODEL DESIGNATION (4-8 positions)**

TCS 2 K 442 2 - 2 2418 A
(1) (2) (3) (4) (5) (6) (7)

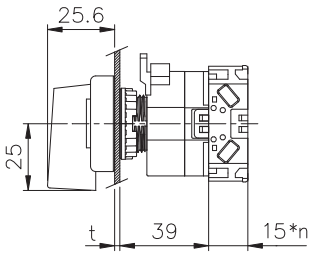
Designation	Signal	Description
1.Mounting hole	2	22 mm / 25 mm
	3	30 mm
2.Type	S	Knob operator
	K	Key operator
3.Position turn angle plate number	440 - 842	

Designation	Signal	Description		
4.Key with drawable (only key operator)	1	Key with-drawable		
	2	0 Key with-drawable		
5.Capacity	1	10 A		
	2	16 A		
	3	25 A		
6.Wiring diagram				
7.Key number	A	3313	E	3131
	B	1313	F	3133
	C	1331	G	3212
	D	3113	H	3331

- **DIMENSIONS**

TCS2S □□- □□

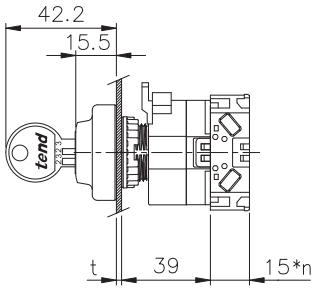




t = 8 max
N = number of contact blocks

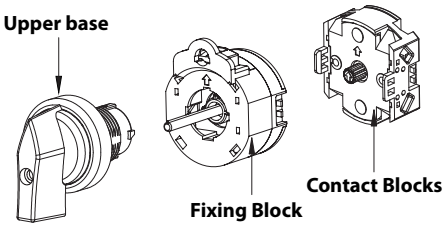
TCS2K □□- □□





t = 8 max
N = number of contact blocks

tend CAM SWITCH
แคมสวิตช์
Ø22 / Ø25 / Ø30



■ **As to the order of components for DIY assembly, please refer to the following assembly illustration diagram.**

■ UPPER BASE DESIGNATION

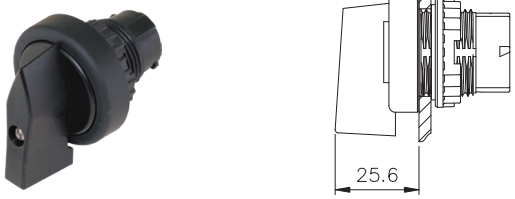
TCS 2 S
1 2

Designation	Signal	Description
1.Mounting hole	2	Ø22 mm / Ø25 mm
	3	Ø30 mm

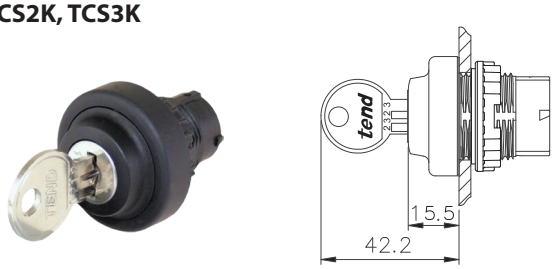
Designation	Signal	Description
2.Handle	S	Short handle
	K	Key

■ DIMENSIONS

TCS2S, TCS3S



TCS2K, TCS3K



■ FIXING BLOCK DESIGNATION

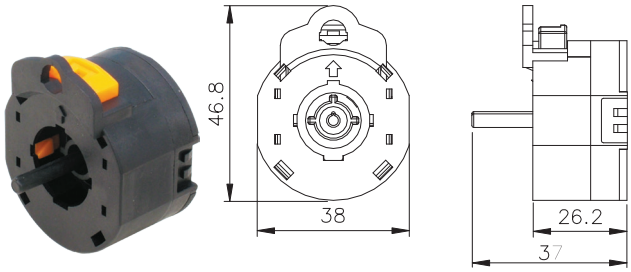
TCS 2 4 R
1 2 3

Designation	Signal	Description
1.Position	2-8	2-8 Position
2.Turn angle	4	45°
	9	90°
3.Operation	None	Hold
	R	Spring return (45°, 2 Position, 3 Position only)

● 22mm/25mm/30mm share base

■ DIMENSIONS

TCS □□□



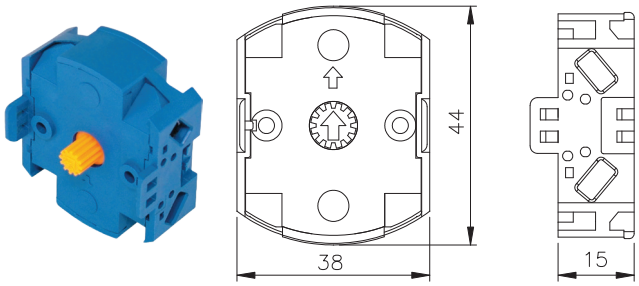
■ CONTACT BLOCK DESIGNATION

TCS 1 C 01
1 2 3

Designation	Signal	Description
1.Capacity	1	10A
	2	16A
	3	25A
2.No.of contacts fitted	S	Single-point contact
	C	Double-point contact
3.Contact base number	CO1 - CA1	See page (M) 9- (M) 20

■ DIMENSIONS

TCS □-C01~CA1
TCS □-S01~SA1



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

CAM SWITCH
แคมสวิตช์
Ø22 / Ø25 / Ø30

Ø 22 / Ø 25 / Ø 30 legend plates for operating devices, aluminum (m) or acrylic (p)

- **TN22P (Acrylic 22)**
- **TN22M (22 Aluminum)**
- **TN25P (Acrylic 25)**
- **TN25M (25 Aluminum)**
- **TN30P (Acrylic 30)**
- **TN30M (30 Aluminum)**

	A	B	C	D
TN22P	ø 22.3	41	32	52.5
TN22M	ø 22.2	31	26.7	42
TN25P	ø 25.5	41	32	52.5
TN25M	ø 24.8	31	26.7	42
TN30P	ø 30.5	41	32	52.5
TN30M	ø 30.2	38.3	32.7	51.9

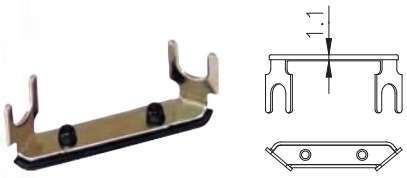
13	14	15	16	17	18	19	20
OFF ON	ON ON	ON OFF ON	FWD REV	FWD OFF REV	AUTO MANU	AUTO OFF MANU	STOP START

21	22	00
MANU OFF AUTO	1 0 2	

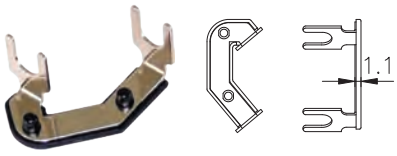
72	73	74
I II	I O II	I II II

ENDOSURE CONTACT

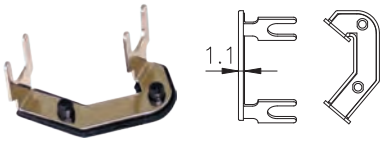
TCS-2H



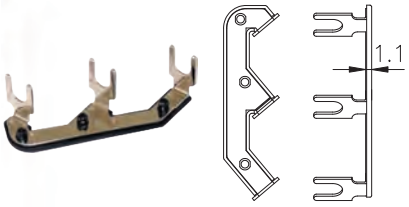
TCS-2L



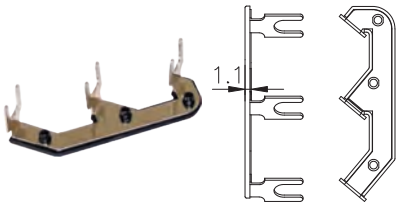
TCS-2R



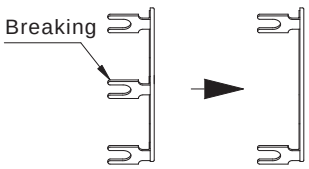
TCS-3L



TCS-3R



The middle terminals of TCS-3L / TCS-3R can be snapped and turned into over passing terminals.



tend CAM SWITCH

แคมสวิตช์

Ø22 / Ø25 / Ø30

FEATURE

- The upper and lower bases of Ø22, Ø30 series can be push-button assembled or disassembles as per our patent.Upper base, fixed base and contact are three detachable parts.
- Unique modular design of contact blocks keeps internal parts from falling apart when contact blocks are disassembled or replaced.
- Can assemble or disassemble contact blocks to suit foe various models yet without risking excessive stock.
- Contact blocks can be added click-on easilly, no need to un screw.
- Connecting screws are fasten from the back rather than nomally from the side.It makes wiring easier.
- A special design to keep connecting terminals are screws in the contact blocks can prevent users from electric shocking.
- All the connecting pieces of terminal are covered to avoid from electric shocking.
- Capacities are differentiaed by colors of contact blocks : blue for 10A, gray foe 16A, and black for 25A.



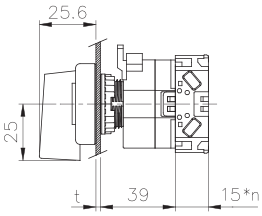
SPECIFICATIONS

Capacity / Voltage	AC-3(kw) 3 ph.	AC-3(kw) 1 ph.	AC-23A(kw) 3 ph.	AC-23A(kw) 1 ph.	AC-21A Iu = Ith
220V ~ 240V	1.5	0.55	1.8	0.75	10A
380V ~ 440V	2.2	0.75	3	1.1	
660V ~ 690V	2.2	0.75	3	1.1	
220V ~ 240V	3	1.5	4	2.2	16A
380V ~ 440V	5.5	2.2	7	3	
660V ~ 690V	5.5	2.2	7	3	
220V ~ 240V	4	3	5.5	3	25A
380V ~ 440V	7.5	3.7	11	5.5	
660V ~ 690V	7.5	3.7	11	5.5	

Rated voltage	AC-3(HP) 3 ph.	AC-3(HP) 1 ph.	Motor load
120V	0.75	0.33	10A
240V	1	0.75	
120V	1.5	0.5	16A
240V	3	1.5	
120V	3	1.5	25A
240V	7.5	3	
480V	10		

CAM Switch
22, 25 & 30 series





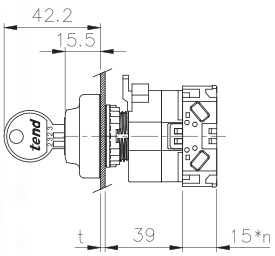
Capacity Size	Amp.	Plate	Contact	Description	Contact block	Amp.	Remark	Price
TCS2S	1	13 ~ 74	1xxx	2 - 3 positions	1 Stack	10A	22 or 25 mm	635.-
TCS2S	1	13 ~ 74	2xxx	2 - 3 positions	2 Stacks	10A	22 or 25 mm	735.-
TCS2S	1	13 ~ 74	3xxx	2 - 3 positions	3 Stacks	10A	22 or 25 mm	900.-
TCS2S	1	13 ~ 74	4xxx	2 - 3 positions	4 Stacks	10A	22 or 25 mm	1,320.-
TCS2S	1	13 ~ 74	5xxx	2 - 3 positions	5 Stacks	10A	22 or 25 mm	1,705.-
TCS2S	1	13 ~ 74	6xxx	2 - 3 positions	6 Stacks	10A	22 or 25 mm	1,965.-
TCS2S	1	13 ~ 74	7xxx	2 - 3 positions	7 Stacks	10A	22 or 25 mm	2,450.-
TCS2S	1	13 ~ 74	8xxx	2 - 3 positions	8 Stacks	10A	22 or 25 mm	2,820.-
TCS2S	1	440 ~ 842	1xxx	4 - 8 positions	1 Stack	10A	22 or 25 mm	645.-
TCS2S	1	440 ~ 842	2xxx	4 - 8 positions	2 Stacks	10A	22 or 25 mm	750.-
TCS2S	1	440 ~ 842	3xxx	4 - 8 positions	3 Stacks	10A	22 or 25 mm	915.-
TCS2S	1	440 ~ 842	4xxx	4 - 8 positions	4 Stacks	10A	22 or 25 mm	1,345.-
TCS2S	1	440 ~ 842	5xxx	4 - 8 positions	5 Stacks	10A	22 or 25 mm	1,720.-
TCS2S	1	440 ~ 842	6xxx	4 - 8 positions	6 Stacks	10A	22 or 25 mm	1,980.-
TCS2S	1	440 ~ 842	7xxx	4 - 8 positions	7 Stacks	10A	22 or 25 mm	2,465.-
TCS2S	1	440 ~ 842	8xxx	4 - 8 positions	8 Stacks	10A	22 or 25 mm	2,830.-
TCS3S	1	13 ~ 74	1xxx	2 - 3 positions	1 Stack	10A	30 mm	645.-
TCS3S	1	13 ~ 74	2xxx	2 - 3 positions	2 Stacks	10A	30 mm	750.-
TCS3S	1	13 ~ 74	3xxx	2 - 3 positions	3 Stacks	10A	30 mm	915.-
TCS3S	1	13 ~ 74	4xxx	2 - 3 positions	4 Stacks	10A	30 mm	1,320.-
TCS3S	1	13 ~ 74	5xxx	2 - 3 positions	5 Stacks	10A	30 mm	1,720.-
TCS3S	1	13 ~ 74	6xxx	2 - 3 positions	6 Stacks	10A	30 mm	1,980.-
TCS3S	1	13 ~ 74	7xxx	2 - 3 positions	7 Stacks	10A	30 mm	2,465.-
TCS3S	1	13 ~ 74	8xxx	2 - 3 positions	8 Stacks	10A	30 mm	2,830.-
TCS3S	1	440 ~ 842	1xxx	4 - 8 positions	1 Stack	10A	30 mm	655.-
TCS3S	1	440 ~ 842	2xxx	4 - 8 positions	2 Stacks	10A	30 mm	765.-
TCS3S	1	440 ~ 842	3xxx	4 - 8 positions	3 Stacks	10A	30 mm	925.-
TCS3S	1	440 ~ 842	4xxx	4 - 8 positions	4 Stacks	10A	30 mm	1,345.-
TCS3S	1	440 ~ 842	5xxx	4 - 8 positions	5 Stacks	10A	30 mm	1,730.-
TCS3S	1	440 ~ 842	6xxx	4 - 8 positions	6 Stacks	10A	30 mm	2,005.-
TCS3S	1	440 ~ 842	7xxx	4 - 8 positions	7 Stacks	10A	30 mm	2,490.-
TCS3S	1	440 ~ 842	8xxx	4 - 8 positions	8 Stacks	10A	30 mm	2,850.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

CAM SWITCH
แคมสวิตช์
Ø22 / Ø25 / Ø30

KEY Switch
22, 25 & 30 series

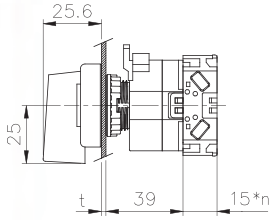




Item code				Description	Contact block	Amp	Remark	Price
Size	Amp	Plate	Contact					
TCS2K	1	13~74	1xxx	2~3 positions	1 Stack	10 A	22 or 25 mm	1,245.-
TCS2K	1	13~74	2xxx	2~3 positions	2 Stacks	10 A	22 or 25 mm	1,320.-
TCS2K	1	13~74	3xxx	2~3 positions	3 Stacks	10 A	22 or 25 mm	1,450.-
TCS2K	1	13~74	4xxx	2~3 positions	4 Stacks	10 A	22 or 25 mm	1,795.-
TCS2K	1	13~74	5xxx	2~3 positions	5 Stacks	10 A	22 or 25 mm	2,070.-
TCS2K	1	13~74	6xxx	2~3 positions	6 Stacks	10 A	22 or 25 mm	2,345.-
TCS2K	1	13~74	7xxx	2~3 positions	7 Stacks	10 A	22 or 25 mm	2,795.-
TCS2K	1	13~74	8xxx	2~3 positions	8 Stacks	10 A	22 or 25 mm	3,160.-
TCS2K	1	440~842	1xxx	4~8 positions	1 Stack	10 A	22 or 25 mm	1,255.-
TCS2K	1	440~842	2xxx	4~8 positions	2 Stacks	10 A	22 or 25 mm	1,345.-
TCS2K	1	440~842	3xxx	4~8 positions	3 Stacks	10 A	22 or 25 mm	1,565.-
TCS2K	1	440~842	4xxx	4~8 positions	4 Stacks	10 A	22 or 25 mm	1,815.-
TCS2K	1	440~842	5xxx	4~8 positions	5 Stacks	10 A	22 or 25 mm	2,090.-
TCS2K	1	440~842	6xxx	4~8 positions	6 Stacks	10 A	22 or 25 mm	2,365.-
TCS2K	1	440~842	7xxx	4~8 positions	7 Stacks	10 A	22 or 25 mm	2,805.-
TCS2K	1	440~842	8xxx	4~8 positions	8 Stacks	10 A	22 or 25 mm	3,170.-
TCS3K	1	13~74	1xxx	2~3 positions	1 Stack	10 A	30 mm	1,255.-
TCS3K	1	13~74	2xxx	2~3 positions	2 Stacks	10 A	30 mm	1,345.-
TCS3K	1	13~74	3xxx	2~3 positions	3 Stacks	10 A	30 mm	1,565.-
TCS3K	1	13~74	4xxx	2~3 positions	4 Stacks	10 A	30 mm	1,815.-
TCS3K	1	13~74	5xxx	2~3 positions	5 Stacks	10 A	30 mm	2,090.-
TCS3K	1	13~74	6xxx	2~3 positions	6 Stacks	10 A	30 mm	2,365.-
TCS3K	1	13~74	7xxx	2~3 positions	7 Stacks	10 A	30 mm	2,805.-
TCS3K	1	13~74	8xxx	2~3 positions	8 Stacks	10 A	30 mm	3,180.-
TCS3K	1	440~842	1xxx	4~8 positions	1 Stack	10 A	30 mm	1,265.-
TCS3K	1	440~842	2xxx	4~8 positions	2 Stacks	10 A	30 mm	1,345.-
TCS3K	1	440~842	3xxx	4~8 positions	3 Stacks	10 A	30 mm	1,575.-
TCS3K	1	440~842	4xxx	4~8 positions	4 Stacks	10 A	30 mm	1,840.-
TCS3K	1	440~842	5xxx	4~8 positions	5 Stacks	10 A	30 mm	2,105.-
TCS3K	1	440~842	6xxx	4~8 positions	6 Stacks	10 A	30 mm	2,380.-
TCS3K	1	440~842	7xxx	4~8 positions	7 Stacks	10 A	30 mm	2,820.-
TCS3K	1	440~842	8xxx	4~8 positions	8 Stacks	10 A	30 mm	3,335.-

CAM Switch
22, 25 & 30 series





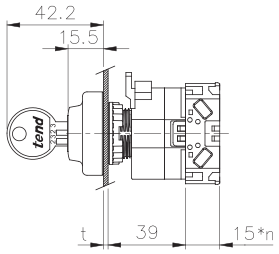
Item code				Description	Contact block	Amp	Remark	Price
Size	Amp	Plate	Contact					
TCS2S	2	13~74	1xxx	2~3 positions	1 Stack	16 A	22 or 25 mm	705.-
TCS2S	2	13~74	2xxx	2~3 positions	2 Stacks	16 A	22 or 25 mm	840.-
TCS2S	2	13~74	3xxx	2~3 positions	3 Stacks	16 A	22 or 25 mm	1,040.-
TCS2S	2	13~74	4xxx	2~3 positions	4 Stacks	16 A	22 or 25 mm	1,530.-
TCS2S	2	13~74	5xxx	2~3 positions	5 Stacks	16 A	22 or 25 mm	1,970.-
TCS2S	2	13~74	6xxx	2~3 positions	6 Stacks	16 A	22 or 25 mm	2,280.-
TCS2S	2	13~74	7xxx	2~3 positions	7 Stacks	16 A	22 or 25 mm	2,820.-
TCS2S	2	13~74	8xxx	2~3 positions	8 Stacks	16 A	22 or 25 mm	3,225.-
TCS2S	2	440~842	1xxx	4~8 positions	1 Stack	16 A	22 or 25 mm	715.-
TCS2S	2	440~842	2xxx	4~8 positions	2 Stacks	16 A	22 or 25 mm	855.-
TCS2S	2	440~842	3xxx	4~8 positions	3 Stacks	16 A	22 or 25 mm	1,065.-
TCS2S	2	440~842	4xxx	4~8 positions	4 Stacks	16 A	22 or 25 mm	1,540.-
TCS2S	2	440~842	5xxx	4~8 positions	5 Stacks	16 A	22 or 25 mm	1,980.-
TCS2S	2	440~842	6xxx	4~8 positions	6 Stacks	16 A	22 or 25 mm	2,290.-
TCS2S	2	440~842	7xxx	4~8 positions	7 Stacks	16 A	22 or 25 mm	2,830.-
TCS2S	2	440~842	8xxx	4~8 positions	8 Stacks	16 A	22 or 25 mm	3,245.-
TCS3S	2	13~74	1xxx	2~3 positions	1 Stack	16 A	30 mm	715.-
TCS3S	2	13~74	2xxx	2~3 positions	2 Stacks	16 A	30 mm	855.-
TCS3S	2	13~74	3xxx	2~3 positions	3 Stacks	16 A	30 mm	1,065.-
TCS3S	2	13~74	4xxx	2~3 positions	4 Stacks	16 A	30 mm	1,540.-
TCS3S	2	13~74	5xxx	2~3 positions	5 Stacks	16 A	30 mm	1,980.-
TCS3S	2	13~74	6xxx	2~3 positions	6 Stacks	16 A	30 mm	2,280.-
TCS3S	2	13~74	7xxx	2~3 positions	7 Stacks	16 A	30 mm	2,830.-
TCS3S	2	13~74	8xxx	2~3 positions	8 Stacks	16 A	30 mm	3,245.-
TCS3S	2	440~842	1xxx	4~8 positions	1 Stack	16 A	30 mm	735.-
TCS3S	2	440~842	2xxx	4~8 positions	2 Stacks	16 A	30 mm	865.-
TCS3S	2	440~842	3xxx	4~8 positions	3 Stacks	16 A	30 mm	1,075.-
TCS3S	2	440~842	4xxx	4~8 positions	4 Stacks	16 A	30 mm	1,565.-
TCS3S	2	440~842	5xxx	4~8 positions	5 Stacks	16 A	30 mm	2005.-
TCS3S	2	440~842	6xxx	4~8 positions	6 Stacks	16 A	30 mm	2,310.-
TCS3S	2	440~842	7xxx	4~8 positions	7 Stacks	16 A	30 mm	2,850.-
TCS3S	2	440~842	8xxx	4~8 positions	8 Stacks	16 A	30 mm	3,260.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

CAM SWITCH
แคมสวิตช์
Ø22 / Ø25 / Ø30

KEY Switch
22, 25 & 30 series

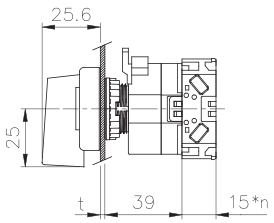




Item Code				Description	Contact Block	Amp.	Remark	Price
Size	Amp.	Plate	Contact					
TCS2K	2	13~74	1xxx	2~3 positions	1 Stack	16 A	22 or 25 mm	1,290.-
TCS2K	2	13~74	2xxx	2~3 positions	2 Stacks	16 A	22 or 25 mm	1,410.-
TCS2K	2	13~74	3xxx	2~3 positions	3 Stacks	16 A	22 or 25 mm	1,675.-
TCS2K	2	13~74	4xxx	2~3 positions	4 Stacks	16 A	22 or 25 mm	1,980.-
TCS2K	2	13~74	5xxx	2~3 positions	5 Stacks	16 A	22 or 25 mm	2,280.-
TCS2K	2	13~74	6xxx	2~3 positions	6 Stacks	16 A	22 or 25 mm	2,600.-
TCS2K	2	13~74	7xxx	2~3 positions	7 Stacks	16 A	22 or 25 mm	3,080.-
TCS2K	2	13~74	8xxx	2~3 positions	8 Stacks	16 A	22 or 25 mm	3,480.-
TCS2K	2	440~842	1xxx	4~8 positions	1 Stack	16 A	22 or 25 mm	1,300.-
TCS2K	2	440~842	2xxx	4~8 positions	2 Stacks	16 A	22 or 25 mm	1,420.-
TCS2K	2	440~842	3xxx	4~8 positions	3 Stacks	16 A	22 or 25 mm	1,695.-
TCS2K	2	440~842	4xxx	4~8 positions	4 Stacks	16 A	22 or 25 mm	2,005.-
TCS2K	2	440~842	5xxx	4~8 positions	5 Stacks	16 A	22 or 25 mm	2,310.-
TCS2K	2	440~842	6xxx	4~8 positions	6 Stacks	16 A	22 or 25 mm	2,620.-
TCS2K	2	440~842	7xxx	4~8 positions	7 Stacks	16 A	22 or 25 mm	3,105.-
TCS2K	2	440~842	8xxx	4~8 positions	8 Stacks	16 A	22 or 25 mm	3,490.-
TCS3K	2	13~74	1xxx	2~3 positions	1 Stack	16 A	30 mm	1,300.-
TCS3K	2	13~74	2xxx	2~3 positions	2 Stacks	16 A	30 mm	1,420.-
TCS3K	2	13~74	3xxx	2~3 positions	3 Stacks	16 A	30 mm	1,695.-
TCS3K	2	13~74	4xxx	2~3 positions	4 Stacks	16 A	30 mm	2,005.-
TCS3K	2	13~74	5xxx	2~3 positions	5 Stacks	16 A	30 mm	2,310.-
TCS3K	2	13~74	6xxx	2~3 positions	6 Stacks	16 A	30 mm	2,620.-
TCS3K	2	13~74	7xxx	2~3 positions	7 Stacks	16 A	30 mm	3,105.-
TCS3K	2	13~74	8xxx	2~3 positions	8 Stacks	16 A	30 mm	3,490.-
TCS3K	2	440~842	1xxx	4~8 positions	1 Stack	16 A	30 mm	1,320.-
TCS3K	2	440~842	2xxx	4~8 positions	2 Stacks	16 A	30 mm	1,445.-
TCS3K	2	440~842	3xxx	4~8 positions	3 Stacks	16 A	30 mm	1,705.-
TCS3K	2	440~842	4xxx	4~8 positions	4 Stacks	16 A	30 mm	2,015.-
TCS3K	2	440~842	5xxx	4~8 positions	5 Stacks	16 A	30 mm	2,310.-
TCS3K	2	440~842	6xxx	4~8 positions	6 Stacks	16 A	30 mm	2,630.-
TCS3K	2	440~842	7xxx	4~8 positions	7 Stacks	16 A	30 mm	3,115.-
TCS3K	2	440~842	8xxx	4~8 positions	8 Stacks	16 A	30 mm	3,520.-

CAM Switch
22, 25 & 30 series





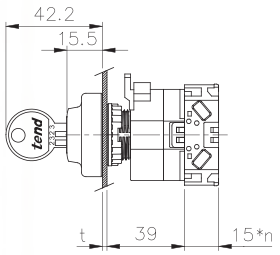
Item Code				Description	Contact Block	Amp.	Remark	Price
Size	Amp.	Plate	Contact					
TCS2S	3	13~74	1xxx	2~3 positions	1 Stack	25 A	22 or 25 mm	770.-
TCS2S	3	13~74	2xxx	2~3 positions	2 Stacks	25 A	22 or 25 mm	955.-
TCS2S	3	13~74	3xxx	2~3 positions	3 Stacks	25 A	22 or 25 mm	1,210.-
TCS2S	3	13~74	4xxx	2~3 positions	4 Stacks	25 A	22 or 25 mm	1,785.-
TCS2S	3	13~74	5xxx	2~3 positions	5 Stacks	25 A	22 or 25 mm	2,290.-
TCS2S	3	13~74	6xxx	2~3 positions	6 Stacks	25 A	22 or 25 mm	2,655.-
TCS2S	3	13~74	7xxx	2~3 positions	7 Stacks	25 A	22 or 25 mm	3,300.-
TCS2S	3	13~74	8xxx	2~3 positions	8 Stacks	25 A	22 or 25 mm	3,730.-
TCS2S	3	440~842	1xxx	4~8 positions	1 Stack	25 A	22 or 25 mm	790.-
TCS2S	3	440~842	2xxx	4~8 positions	2 Stacks	25 A	22 or 25 mm	970.-
TCS2S	3	440~842	3xxx	4~8 positions	3 Stacks	25 A	22 or 25 mm	1,225.-
TCS2S	3	440~842	4xxx	4~8 positions	4 Stacks	25 A	22 or 25 mm	1,795.-
TCS2S	3	440~842	5xxx	4~8 positions	5 Stacks	25 A	22 or 25 mm	2,310.-
TCS2S	3	440~842	6xxx	4~8 positions	6 Stacks	25 A	22 or 25 mm	2,675.-
TCS2S	3	440~842	7xxx	4~8 positions	7 Stacks	25 A	22 or 25 mm	3,315.-
TCS2S	3	440~842	8xxx	4~8 positions	8 Stacks	25 A	22 or 25 mm	3,740.-
TCS3S	3	13~74	1xxx	2~3 positions	1 Stack	25 A	30 mm	790.-
TCS3S	3	13~74	2xxx	2~3 positions	2 Stacks	25 A	30 mm	970.-
TCS3S	3	13~74	3xxx	2~3 positions	3 Stacks	25 A	30 mm	1,225.-
TCS3S	3	13~74	4xxx	2~3 positions	4 Stacks	25 A	30 mm	1,795.-
TCS3S	3	13~74	5xxx	2~3 positions	5 Stacks	25 A	30 mm	2,310.-
TCS3S	3	13~74	6xxx	2~3 positions	6 Stacks	25 A	30 mm	2,675.-
TCS3S	3	13~74	7xxx	2~3 positions	7 Stacks	25 A	30 mm	3,315.-
TCS3S	3	13~74	8xxx	2~3 positions	8 Stacks	25 A	30 mm	3,740.-
TCS3S	3	440~842	1xxx	4~8 positions	1 Stack	25 A	30 mm	805.-
TCS3S	3	440~842	2xxx	4~8 positions	2 Stacks	25 A	30 mm	980.-
TCS3S	3	440~842	3xxx	4~8 positions	3 Stacks	25 A	30 mm	1,235.-
TCS3S	3	440~842	4xxx	4~8 positions	4 Stacks	25 A	30 mm	1,805.-
TCS3S	3	440~842	5xxx	4~8 positions	5 Stacks	25 A	30 mm	2,325.-
TCS3S	3	440~842	6xxx	4~8 positions	6 Stacks	25 A	30 mm	2,685.-
TCS3S	3	440~842	7xxx	4~8 positions	7 Stacks	25 A	30 mm	3,335.-
TCS3S	3	440~842	8xxx	4~8 positions	8 Stacks	25 A	30 mm	3,755.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CAM SWITCH
แคมสวิตช์
Ø22 / Ø25 / Ø30

KEY Switch
22, 25 & 30 series





Item Code				Description	Contact Block	Amp.	Remark	Price
Size	Amp.	Plate	Contact					
TCS2K	3	13~74	1xxx	2~3 positions	1 Stack	25 A	22 or 25 mm	1320.-
TCS2K	3	13~74	2xxx	2~3 positions	2 Stacks	25 A	22 or 25 mm	1,510.-
TCS2K	3	13~74	3xxx	2~3 positions	3 Stacks	25 A	22 or 25 mm	1,805.-
TCS2K	3	13~74	4xxx	2~3 positions	4 Stacks	25 A	22 or 25 mm	2180.-
TCS2K	3	13~74	5xxx	2~3 positions	5 Stacks	25 A	22 or 25 mm	2,520.-
TCS2K	3	13~74	6xxx	2~3 positions	6 Stacks	25 A	22 or 25 mm	2,860.-
TCS2K	3	13~74	7xxx	2~3 positions	7 Stacks	25 A	22 or 25 mm	3,445.-
TCS2K	3	13~74	8xxx	2~3 positions	8 Stacks	25 A	22 or 25 mm	3,895.-
TCS2K	3	440~842	1xxx	4~8 positions	1 Stack	25 A	22 or 25 mm	1,335.-
TCS2K	3	440~842	2xxx	4~8 positions	2 Stacks	25 A	22 or 25 mm	1,510.-
TCS2K	3	440~842	3xxx	4~8 positions	3 Stacks	25 A	22 or 25 mm	1,830.-
TCS2K	3	440~842	4xxx	4~8 positions	4 Stacks	25 A	22 or 25 mm	2190.-
TCS2K	3	440~842	5xxx	4~8 positions	5 Stacks	25 A	22 or 25 mm	2,530.-
TCS2K	3	440~842	6xxx	4~8 positions	6 Stacks	25 A	22 or 25 mm	2,885.-
TCS2K	3	440~842	7xxx	4~8 positions	7 Stacks	25 A	22 or 25 mm	3,465.-
TCS2K	3	440~842	8xxx	4~8 positions	8 Stacks	25 A	22 or 25 mm	3,905.-
TCS3K	3	13~74	1xxx	2~3 positions	1 Stack	25 A	30 mm	1,335.-
TCS3K	3	13~74	2xxx	2~3 positions	2 Stacks	25 A	30 mm	1,510.-
TCS3K	3	13~74	3xxx	2~3 positions	3 Stacks	25 A	30 mm	1,830.-
TCS3K	3	13~74	4xxx	2~3 positions	4 Stacks	25 A	30 mm	2190.-
TCS3K	3	13~74	5xxx	2~3 positions	5 Stacks	25 A	30 mm	2,530.-
TCS3K	3	13~74	6xxx	2~3 positions	6 Stacks	25 A	30 mm	2,885.-
TCS3K	3	13~74	7xxx	2~3 positions	7 Stacks	25 A	30 mm	3,465.-
TCS3K	3	13~74	8xxx	2~3 positions	8 Stacks	25 A	30 mm	3,905.-
TCS3K	3	440~842	1xxx	4~8 positions	1 Stack	25 A	30 mm	1,345.-
TCS3K	3	440~842	2xxx	4~8 positions	2 Stacks	25 A	30 mm	1,530.-
TCS3K	3	440~842	3xxx	4~8 positions	3 Stacks	25 A	30 mm	1,840.-
TCS3K	3	440~842	4xxx	4~8 positions	4 Stacks	25 A	30 mm	2,200.-
TCS3K	3	440~842	5xxx	4~8 positions	5 Stacks	25 A	30 mm	2,555.-
TCS3K	3	440~842	6xxx	4~8 positions	6 Stacks	25 A	30 mm	2,895.-
TCS3K	3	440~842	7xxx	4~8 positions	7 Stacks	25 A	30 m/m	3,480.-
TCS3K	3	440~842	8xxx	4~8 positions	8 Stacks	25 A	30 mm	3,920.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MAIN SWITCH
เมนสวิตช์

FEATURE

- These series of switches has 5 types of capacity ranging from 16A to 66A.
- Installation includes fixed way (fixed on the operating panel) and detached way (contact fixed in the control box whereas upper base and handles fixed on the tope cover of the control box)
- Detachable type can be installed on TBR-N (standard aluminium rail-wide rail)
- There are two types of switching handles : standard and round.Standard is colored in red, yellow or black, silver while round ones in red, yellow or black, gray.

MODEL DESIGNATION

TDS25 F R R 1
1 2 3 4 5

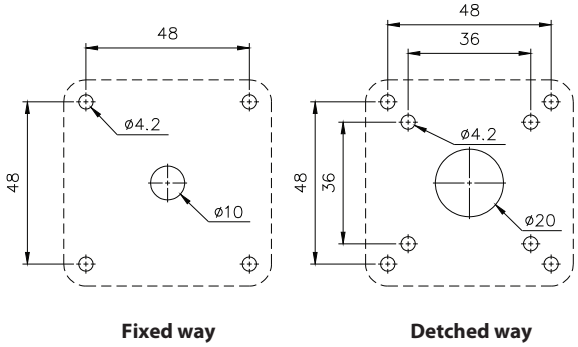
Designation	Signal	Description
1. Capacity	TDS16	16A
	TDS25	25A
	TDS33	33A
	TDS40	40A
	TDS66	66A
2. Installation way	F	Fixed way
	B	Detched way
	E	Control stations
3. Handle	S	Standard handle
	R	Rotundity handle
4. Color	B	Black / Silver / Gray
	R	Red / Yellow
5. Transmission rod length (only detached way)	None	100 mm
	1	150 mm
	2	250 mm
	3	300 mm

	Type / Voltage	TDS16	TDS25	TDS33	TDS40	TDS66
AC-3 (kw)	220V - 240V	2.2	4	5.5	7.5	11.0
	380V - 440V	3.7	5.5	7.5	11.0	18.5
	660V - 690V	3.7	5.5	7.5	15.0	22.5
AC-23A (kw)	220V - 240V	3.0	5.5	5.5	7.5	11.0
	380V - 440V	5.5	7.5	11.5	15.0	22.0
	660V - 690V	3.7	7.5	11.5	18.5	30.0
AC-21		16A	25A	33A	40A	66A

	Type / Voltage	TDS16	TDS25	TDS33	TDS40	TDS66
AC-3 (hp)	110V - 120V	1	1.5	2	3	5
	220V - 440V	2	3	5	7.5	10
	380V - 440V	3	5	10	15	20
	660V - 690V	3	5	10	15	20

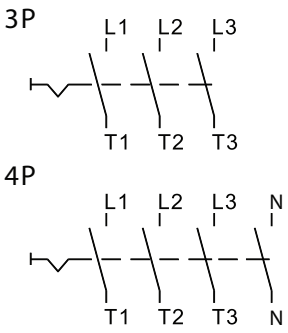
3 phase . 3 poles

PLATE DIMENSIONS

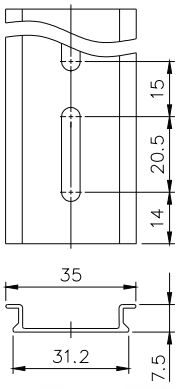


Fixed way Detched way

WIRING DIAGRAM



TBR-N (Dimensions)



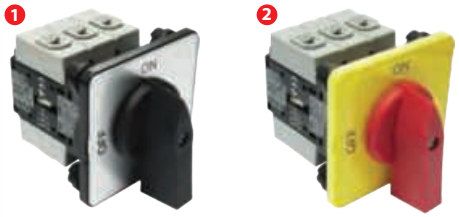
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

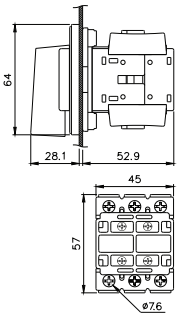
tend MAIN SWITCH
เมนสวิตช์

DIMENSIONS

Fixed Way Standard Handle

1. TDS16/25/33-FSB
   หน้าปัดสีขาว ลูกบิดสีดำ
2. TDS16/25/33-FSR
   หน้าปัดสีเหลือง ลูกบิดสีแดง

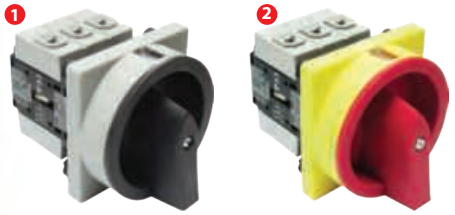


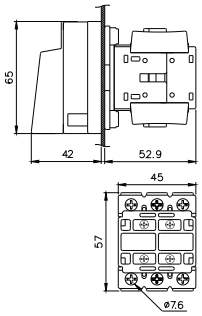


Type	Price
TDS16(16A)-FSB	1,225.-
TDS16(16A)-FSR	1,225.-
TDS25(25A)-FSB	1,335.-
TDS25(25A)-FSR	1,335.-
TDS33(33A)-FSB	1,575.-
TDS33(33A)-FSR	1,575.-

Fixed Way Rotundity Handle

1. TDS16/25/33-FRB
   หน้าปัดสีขาว ลูกบิดสีดำ
2. TDS16/25/33-FRR
   หน้าปัดสีเหลือง ลูกบิดสีแดง



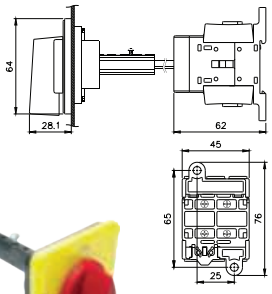


Type	Price
TDS16(16A)-FRB	1,225.-
TDS16(16A)-FRR	1,225.-
TDS25(25A)-FRB	1,335.-
TDS25(25A)-FRR	1,335.-
TDS33(33A)-FRB	1,575.-
TDS33(33A)-FRR	1,575.-

Detched Way Standard Handle

1. TDS16/25/33-BSB
   หน้าปัดสีขาว ลูกบิดสีดำ
2. TDS16/25/33-BSR
   หน้าปัดสีเหลือง ลูกบิดสีแดง



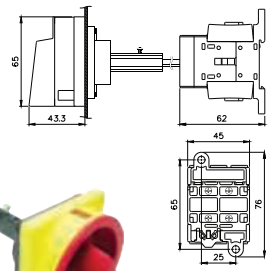


Type	Price	Type	Price
TDS16(16A)-BSB	1,335.-	TDS16(16A)-BSR	1,335.-
TDS16(16A)-BSB1	1,335.-	TDS16(16A)-BSR1	1,335.-
TDS16(16A)-BSB2	1,430.-	TDS16(16A)-BSR2	1,430.-
TDS16(16A)-BSB3	1,430.-	TDS16(16A)-BSR3	1,430.-
TDS25(25A)-BSB	1,430.-	TDS25(25A)-BSR	1,430.-
TDS25(25A)-BSB1	1,430.-	TDS25(25A)-BSR1	1,430.-
TDS25(25A)-BSB2	1,575.-	TDS25(25A)-BSR2	1,575.-
TDS25(25A)-BSB3	1,575.-	TDS25(25A)-BSR3	1,575.-
TDS33(33A)-BSB	1,695.-	TDS33(33A)-BSR	1,695.-
TDS33(33A)-BSB1	1,695.-	TDS33(33A)-BSR1	1,695.-
TDS33(33A)-BSB2	1,795.-	TDS33(33A)-BSR2	1,795.-
TDS33(33A)-BSB3	1,795.-	TDS33(33A)-BSR3	1,795.-

Detched Way Rotundity Handle

1. TDS16/25/33-BRB
   หน้าปัดสีขาว ลูกบิดสีดำ
2. TDS16/25/33-BRR
   หน้าปัดสีเหลือง ลูกบิดสีแดง





Type	Price	Type	Price
TDS16(16A)-BRB	1,335.-	TDS16(16A)-BRR	1,335.-
TDS16(16A)-BRB1	1,335.-	TDS16(16A)-BRR1	1,335.-
TDS16(16A)-BRB2	1,430.-	TDS16(16A)-BRR2	1,430.-
TDS16(16A)-BRB3	1,430.-	TDS16(16A)-BRR3	1,430.-
TDS25(25A)-BRB	1,430.-	TDS25(25A)-BRR	1,430.-
TDS25(25A)-BRB1	1,430.-	TDS25(25A)-BRR1	1,430.-
TDS25(25A)-BRB2	1,575.-	TDS25(25A)-BRR2	1,575.-
TDS25(25A)-BRB3	1,575.-	TDS25(25A)-BRR3	1,575.-
TDS33(33A)-BRB	1,695.-	TDS33(33A)-BRR	1,695.-
TDS33(33A)-BRB1	1,695.-	TDS33(33A)-BRR1	1,695.-
TDS33(33A)-BRB2	1,795.-	TDS33(33A)-BRR2	1,795.-
TDS33(33A)-BRB3	1,795.-	TDS33(33A)-BRR3	1,795.-

หมายเหตุ : ราคานี้พร้อมก้านมาตราฐาน 100 มม. มีก้านความยาวอีก 3 ขนาด สามารถเปลี่ยนได้ตามความต้องการราคาก้านยาว 150 มม. ก้านยาว 250 มม. ก้านยาว 300 มม.

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

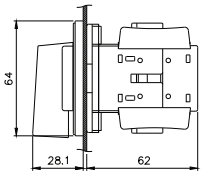
tend MAIN SWITCH
เมนสวิตช์

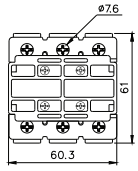
DIMENSIONS

Fixed Way Standard Handle

1. **TDS40/66/80-FSB**
   หน้าปัดสีขาว ลูกบิดสีดำ
2. **TDS40/60/80-FSR**
   หน้าปัดสีเหลือง ลูกบิดสีแดง





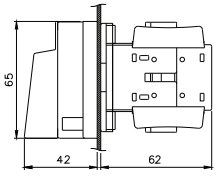


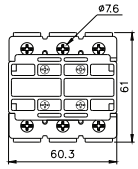
Type	Price
TDS40(40A)-FSB	1,895.-
TDS40(40A)-FSR	1,895.-
TDS66(66A)-FSB	2,380.-
TDS66(66A)-FSR	2,380.-
TDS80(80A)-FSB	3,135.-
TDS80(80A)-FSR	3,135.-

Fixed Way Rotundity Handle

1. **TDS40/66/80-FRB**
   หน้าปัดสีขาว ลูกบิดสีดำ
2. **TDS40/66/80-FRR**
   หน้าปัดสีเหลือง ลูกบิดสีแดง





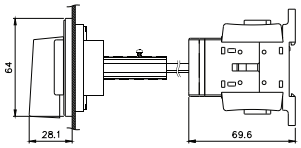


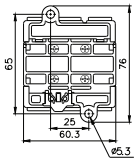
Type	Price
TDS40(40A)-FRB	1,895.-
TDS40(40A)-FRR	1,895.-
TDS66(66A)-FRB	2,380.-
TDS66(66A)-FRR	2,380.-
TDS80(80A)-FRB	3,135.-
TDS80(80A)-FRR	3,135.-

Detched Way Rotundity Handle

1. **TDS40/66/80-BSB**
   หน้าปัดสีขาว ลูกบิดสีดำ
2. **TDS40/66/80-BSR**
   หน้าปัดสีเหลือง ลูกบิดสีแดง





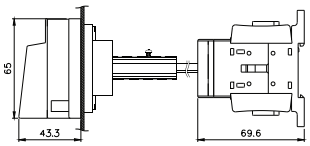


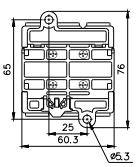
Type	Price	Type	Price
TDS40(40A)-BSB	2,015.-	TDS40(40A)-BSR	2,015.-
TDS40(40A)-BSB1	2,015.-	TDS40(40A)-BSR1	2,015.-
TDS40(40A)-BSB2	2,125.-	TDS40(40A)-BSR2	2,125.-
TDS40(40A)-BSB3	2,125.-	TDS40(40A)-BSR3	2,125.-
TDS66(66A)-BSB	2,500.-	TDS66(66A)-BSR	2,500.-
TDS66(66A)-BSB1	2,500.-	TDS66(66A)-BSR1	2,500.-
TDS66(66A)-BSB2	2,620.-	TDS66(66A)-BSR2	2,620.-
TDS66(66A)-BSB3	2,620.-	TDS66(66A)-BSR3	2,620.-
TDS80(80A)-BSB	3,260.-	TDS80(80A)-BSR	3,260.-
TDS80(80A)-BSB1	3,260.-	TDS80(80A)-BSR1	3,260.-
TDS80(80A)-BSB2	3,380.-	TDS80(80A)-BSR2	3,380.-
TDS80(80A)-BSB3	3,380.-	TDS80(80A)-BSR3	3,380.-

Detched Way Rotundity Handle

1. **TDS40/66/80-BRB**
   หน้าปัดสีขาว ลูกบิดสีดำ
2. **TDS40/66/80-BRR**
   หน้าปัดสีเหลือง ลูกบิดสีแดง







Type	Price	Type	Price
TDS40(40A)-BRB	2,015.-	TDS40(40A)-BRR	2,015.-
TDS40(40A)-BRB1	2,015.-	TDS40(40A)-BRR1	2,015.-
TDS40(40A)-BRB2	2,125.-	TDS40(40A)-BRR2	2,125.-
TDS40(40A)-BRB3	2,125.-	TDS40(40A)-BRR3	2,125.-
TDS66(66A)-BRB	2,500.-	TDS66(66A)-BRR	2,500.-
TDS66(66A)-BRB1	2,500.-	TDS66(66A)-BRR1	2,500.-
TDS66(66A)-BRB2	2,620.-	TDS66(66A)-BRR2	2,620.-
TDS66(66A)-BRB3	2,620.-	TDS66(66A)-BRR3	2,620.-
TDS80(80A)-BRB	3,260.-	TDS80(80A)-BRR	3,260.-
TDS80(80A)-BRB1	3,260.-	TDS80(80A)-BRR1	3,260.-
TDS80(80A)-BRB2	3,380.-	TDS80(80A)-BRR2	3,380.-
TDS80(80A)-BRB3	3,380.-	TDS80(80A)-BRR3	3,380.-

หมายเหตุ : ราคานี้พร้อมก้านมาตราฐาน 100 มม. มีก้านความยาวอีก 3 ขนาด สามารถเปลี่ยนได้ตามความต้องการราคาก้านยาว 150 มม. ก้านยาว 250 มม. ก้านยาว 300 มม.

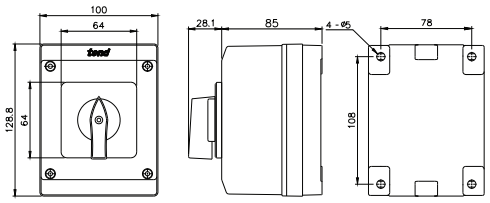
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MAIN SWITCH
เมนสวิตช์

CONTROL STATION STANDARD HANDLE

TDS-ESB
หน้าปัดสีขาว, ลูกบิดสีดำ

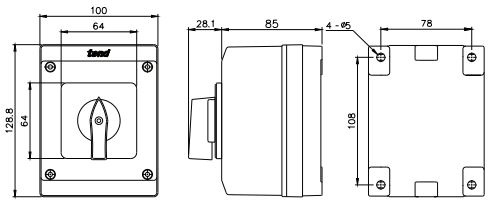




Type	Price
TDS-16ESB(16A)	1,675.-
TDS-25ESB(25A)	1,795.-
TDS-33ESB(33A)	2,255.-
TDS-40ESB(40A)	2,585.-
TDS-66ESB(66A)	2,850.-
TDS-80ESB(80A)	3,620.-

TDS-ESR
หน้าปัดสีเหลือง, ลูกบิดสีแดง



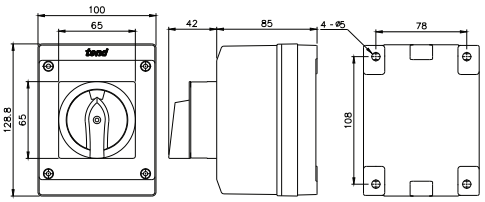


Type	Price
TDS-16ESR(16A)	1,675.-
TDS-25ESR(25A)	1,795.-
TDS-33ESR(33A)	2,255.-
TDS-40ESR(40A)	2,585.-
TDS-66ESR(66A)	2,850.-
TDS-80ESR(80A)	3,620.-

CONTROL STATION ROTUNDITY HANDLE

TDS-ERB
หน้าปัดสีขาว, ลูกบิดสีดำ

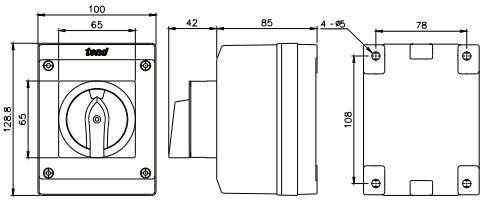




Type	Price
TDS-16ERB(16A)	1,675.-
TDS-25ERB(25A)	1,795.-
TDS-33ERB(33A)	2,255.-
TDS-40ERB(40A)	2,585.-
TDS-66ERB(66A)	2,850.-
TDS-80ERB(80A)	3,620.-

TDS-ERR
หน้าปัดสีเหลือง, ลูกบิดสีแดง





Type	Price
TDS-16ERR(16A)	1,675.-
TDS-25ERR(25A)	1,795.-
TDS-33ERR(33A)	2,255.-
TDS-40ERR(40A)	2,585.-
TDS-66ERR(66A)	2,850.-
TDS-80ERR(80A)	3,620.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MAIN SWITCH
เมนสวิตช์

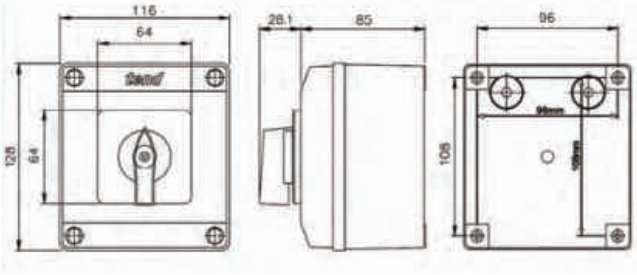
CONTROL STATIONS

TDS4□□-ESB



TDS4□□-ESR



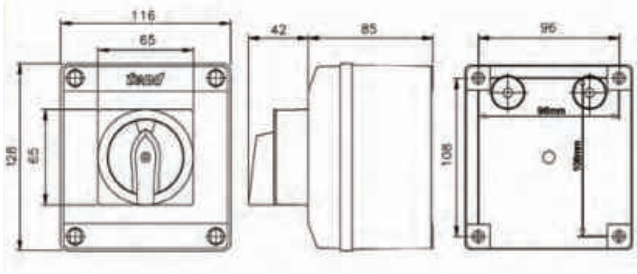


TDS4□□-ERB



TDS4□□-ERR



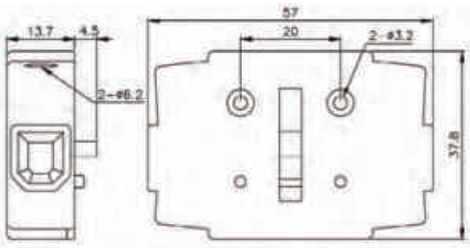


REINFORCING CONTACT BLOCK & COVER

TDS16/33-AF/AB□ **□ :blank=1P, 2=2P (Single side)**



Designation	Description
TDS16-AF	16A Fixed reinforcing contact block
TDS33-AF	33A Fixed reinforcing contact block
TDS16-AB	16A Detachable reinforcing contact block
TDS33-AB	33A Detachable reinforcing contact block



1NO

- Can be used as the main contact block with the same voltage,or as an reinforcing contact block with different voltage.
- A maximum of two sets of reinforcing contact blocks can be attached on one side.



Designation	Description
TDS40-C4	40A-4P cover (16A~40A)
TDS80-C4	80A-4P cover (66A~80A)

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MULTIFUNCTION COUNTER
มัลติฟังก์ชั่นเคาน์เตอร์

MODEL : T7D-C

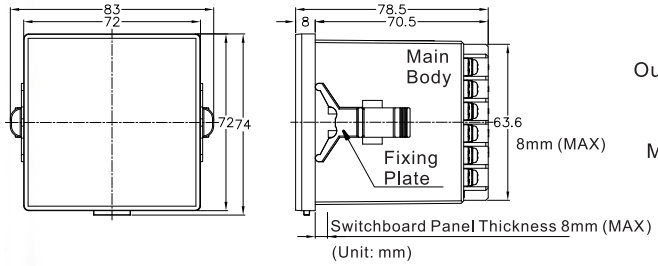
Price 7,620.-

CAUTION BEFORE USE

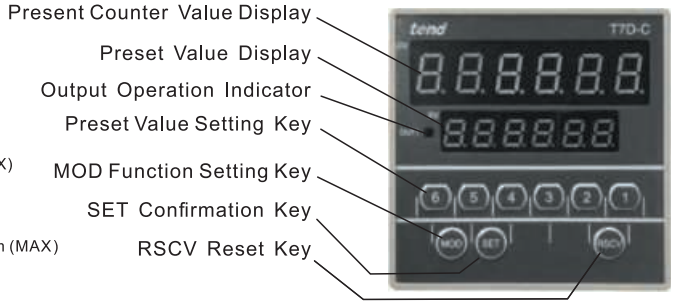
(Hold the MOD key then switch it on, the S/W version date can be displayed.)

1. Check and ensure if electricity 110VAC or 220 VAC power is connected to the correct terminals.
2. Do not run Counter Signal Input line or Reset Signal Input line parallel with AC power wires for drive power, hi-voltage power, main stream current, or twisting together with the latter of along through shielding conduit. When unavoidable be sure to run only insulation coat protected lines.
3. Do not use it under direct sunlight, where there is sharp change in temperature, corrosive gas, moisture and dust, spill of oil, water or chemical, or where there is heavy vibration or impacts.

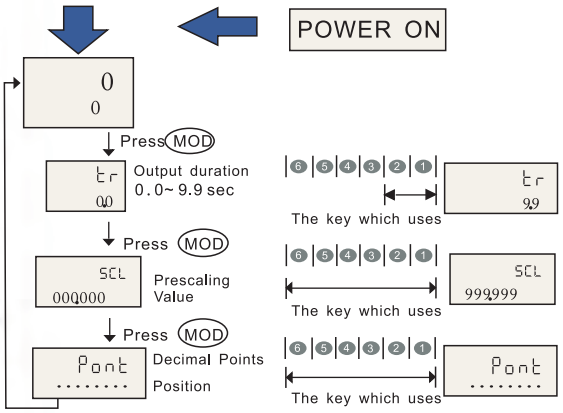
APPEARANCE AND DIMENSIONS



PANEL DESCRIPTIONS

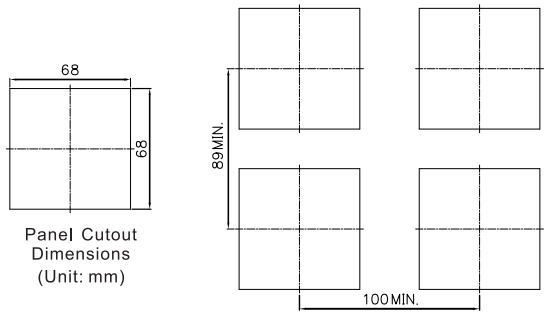


MOD FUNCTION KEY SETTING INSTRUTIONS



Display will return to run Mode in 3 seconds when no key is triggered or when SET key is pressed.

PANEL CUTOUTS

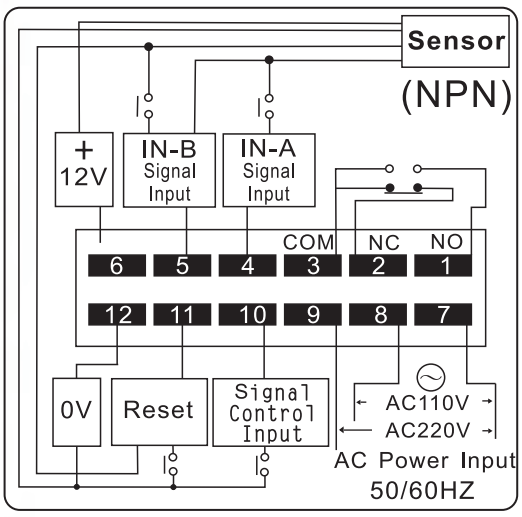


PRESET SETTING

Use ⑥ ⑤ ④ ③ ② ① key to adjust the sv value, from 000000 to 999999

Note: Display will return to run Mode in 3 seconds when no key is pressed for 3 sec or when the SET key is pressed.

TERMINAL ARRANGEMENT



SPECIFICATIONS

Power supply	AC110/220V 50/60HZ <4VA
Input method	H(Logic):4.5~30Vdc, L(Logic):0~2Vdc,(Impedence:4.7KΩ)
Counting speed	Contact Input: 30cps (max), Contactless Input: 3000cps (max)
Power source for sensor	12Vdc(±10%)/70mA MAX
Reset input	MIN Input Signal: 50mS
Control output	NO/NC 10A/5A 120Vac (240Vac MAX)
Output time	0~9.9 sec
Memory	EEPROM (Overwrites: 100,000 times, data store for more than 10 years)
Working temperature	-10°C~55°C (No Ice or Condensation)
Ambient temperature	-25°C~65°C (No Ice or Condensation)
Ambient humidity	45%~85%RH

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MULTIFUNCTION COUNTER
มัลติฟังก์ชั่นเคาน์เตอร์

BASIC FUNCTION SETTINGS

1	MOD Control	Description
	Enabled	Function selection enabled
	Disabled	Function selection disabled

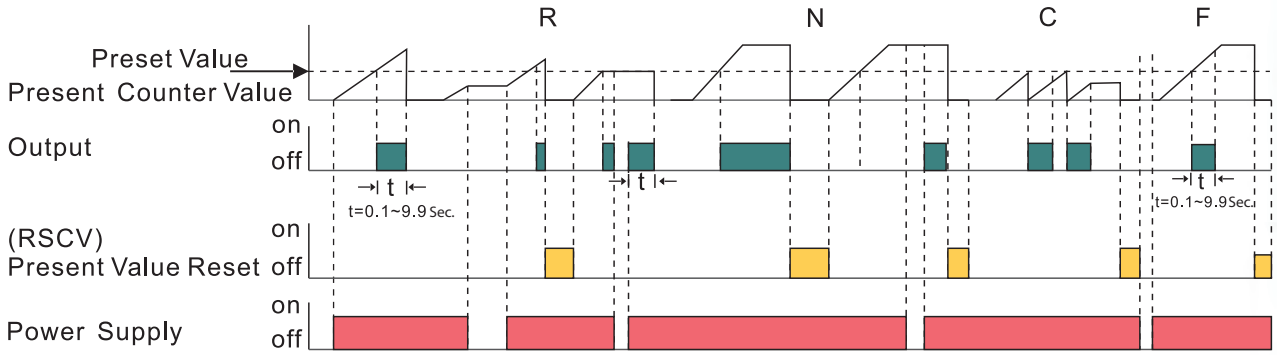
234	Output function	Description
	N mode	Manual reset (CV resets externally)
	R mode	Auto reset (CV resets when output finishes)
	C mode	Auto reset (CV resets when output starts)
	F mode	Manual reset (CV resets externally)

56	Counter mode	Description
	Single add up mode	IN-A Input addition, IN-B No input
	Addition mode	IN-A and IN-B can be inputted together or separate
	Subtraction mode	IN-A Input addition, IN-B Input subtraction
	Up/Down mode	IN-A and IN-B Input phase shift of 90 degree, addition or subtraction can be autometically determined

78	Counter mode	Description
	30CPS	Used for contact input (Micro switch,Relay)
	1000CPS	Used for contactless input
	3000CPS	Used for contactless input

Note: CPS = counts per second

TIMING CHARTS (COUNTER OPERATION AND R,N,C AUTO OR MANUAL RESET MODE)



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOTAL COUNTER
โททอลเคาน์เตอร์

LIMITATION OF USE

When this product is used on devices with special safety requirement or when it is used in important applications, please pay special attention to the overall system and device safety.

When necessary, please install fail-safe safety device, perform additional checks and regular inspections and other appreciate safety measures.

Class II.

Backlight Function (Optional) requires external AC/DC24V Power Supply.

SAFETY PRECAUTIONS

In order to prevent injuries and accidents, be sure to follow the below warnings. In the case of misuse, it could cause death or serious injury to the user.

NOTE: In the case of misuse, it could cause injury to the user or damage to the article.

Warnings

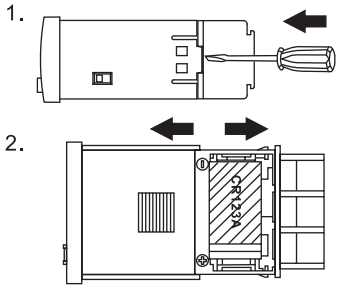
- Incorrect wiring may cause damages to the product or other hazards. Before power is turned on, please make sure the wiring of this product is correct.
- When wiring, moving or prior to installing this product, please make sure the power is off, otherwise it may cause electric shock.
- Do not touch the conductive parts, such as the power supply terminals, or it may cause electric shock.
- Do not disassemble the product as this may cause electric shock or malfunction of the product.

Note

- Please check the specifications for the recommended operating ranges for use (such as temperature, humidity, voltage installation etc.) Otherwise, it could cause fire or malfunction of the product.
- Please use screws to secure the wire connections tightly. If the connection is not secured, it may cause abnormal heat or smoke.

BATTERY REPLACEMENT

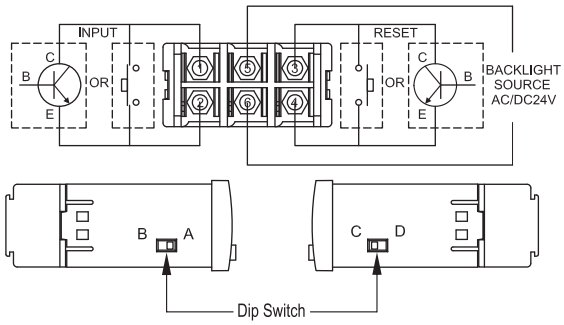
1.Use the flathead screwdriver to pry open the housing.
2.Pull open the housing.
3.Remove the old battery(CR123A), insert a new battery, and pay attention to polarity.
(Please complete these steps within 30 seconds to ensure the memory is not lost.)



SPECIFICATIONS

Operating voltage	DC:3 (Battery : CR123A)
Battery life	7 Years (at 25 C)
Backlight operating voltage	AC/DC 24V
Backlight voltage range	85% ~ 110% of rated operating voltage
Backlight power supply frequency	50/60HZ
Power consumption	About 0.8W/2.4VA
Ambient temperature	-10 C~50 C
Ambient humidity	Max 85% RH
Weight	About 68g
Max. counting speeds	30HZ/1KKHZ

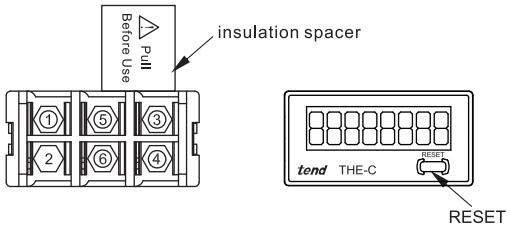
WIRING DIAGRAM



Key function	A	B	C	D
			Key protect	
	1K HZ	30 HZ	Key/P off	Key/P on

BEFORE USE

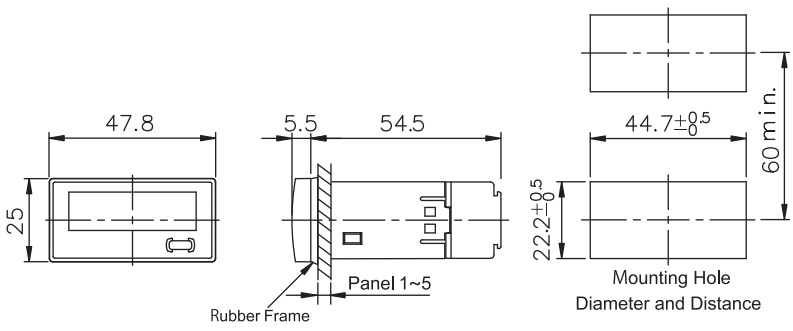
Please remove the battery plastic pull tab before use.



APPEARANCE AND DIMENSIONS

THE-C (No Backlight)
THE-CB (Backlight)





tend LED MACHINE LIGHT
โคมไฟส่องเครื่องจักรใช้หลอด LED

SGS CE

CHARACTERISTICS

Lamp	Cold white LED	LED	55W	70W
Watt	8W		55W	70W
Voltage	12 VAC/CD, 24VAC/DC, 100 ~ 240VAC		12VAC/DC	24VAC/DC
Illumination at 50 cm	10,000 UX. Min.	5,500 UX. Min.	4,500 UX. Min.	6,800 UX. Min.
Life	30,000 hrs. Min.		800 hrs. Min	
IP rating	IP65			
Glass	Tempered glass			

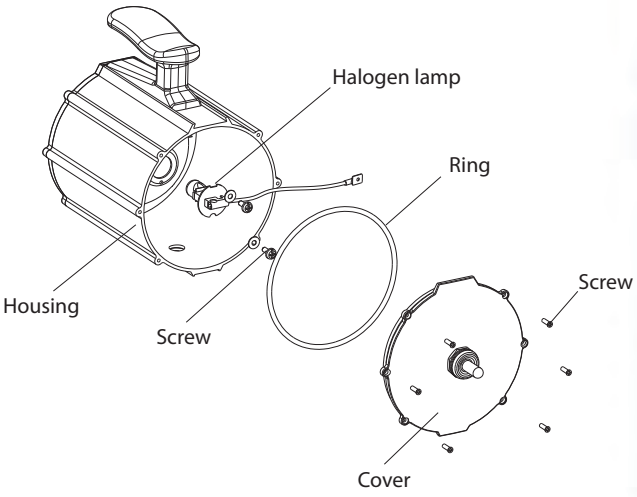
MODEL DESIGNATIONS

THL 10 - 7 H 7 L S ☐
1 2 3 4 5 6

Item	Signal	Description
1.Type	THL 10-7	Ø100mm Machine Lights
2.Lever	7W	Warm white LED
	7C	Color white LED
	H	Halogen Lamp
3.Voltage	1	110 VAC (Halogen Lamp)
	2	100 ~ 240VAC (LED)
	7	24VAC/DC
	9	12VAC/DC
4.Length	L	410mm + 390mm
	M	410mm + 115mm
	R	220mm + 220mm
	S	- -
5.Base	Space	Square 45mm*45mm
	L	L Type Base
	S6	Square 60mm*60mm
	T	Triangle Base
6.Color	Space	Silver
	B	Black

REPLACEMENT LAMP

Step 1 - Loosen the screws.
Step 2 - Release cover and O-ring.
Step 3 - Loosen the screws and replace the halogen lamp.

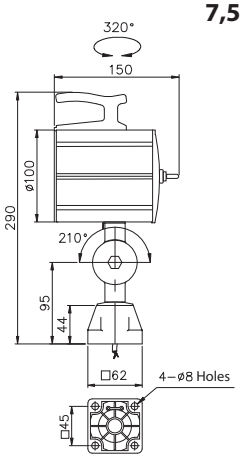


DIMENSIONS

• THL-10-S

THL10-7W-S	9,240.-
THL10-7C-S	9,240.-
THL10-H-S	7,515.-

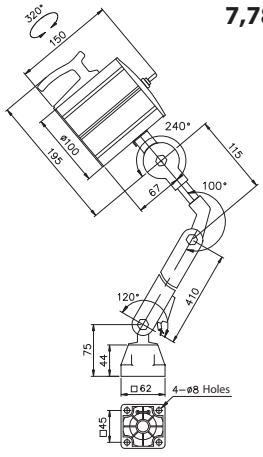




• THL-10-M

THL10-7W-M	9,240.-
THL10-7C-M	9,240.-
THL10-H-M	7,780.-





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend LED MACHINE LIGHT
โคมไฟส่องเครื่องจักรใช้หลอด LED

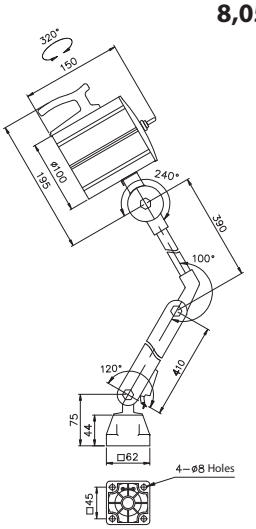
SGS CE

DIMENSIONS

•THL-10-L

THL10-7W-L	9,240.-
THL10-7C-L	9,240.-
THL10-H-L	8,055.-

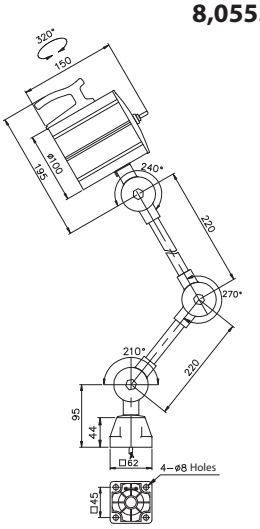




•THL-10-R

THL10-7W-R	9,240.-
THL10-7C-R	9,240.-
THL10-H-R	8,055.-





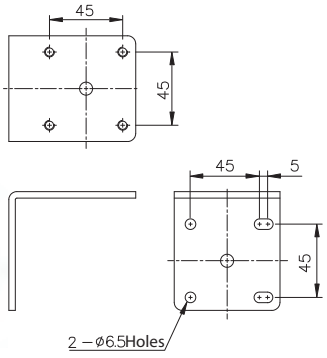
BASE

ฐานตั้งโคมสำหรับรุ่น THL 10 และ THL 07

BASE For THL 10, THL 07

(THL-10-A)

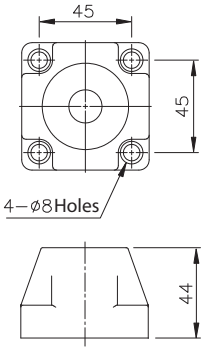




45 mm **165.-**

(THL-10-S4)

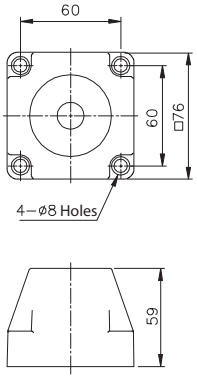




60 mm **310.-**

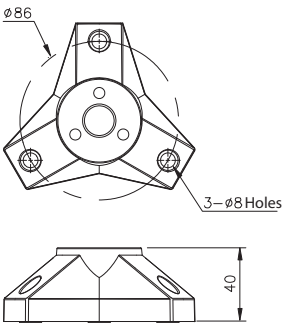
(THL-10-S6)





(THL-10-T) **220.-**





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

LED MACHINE LIGHT
โคมไฟส่องเครื่องจักรใช้หลอด HALOGEN
Ø70

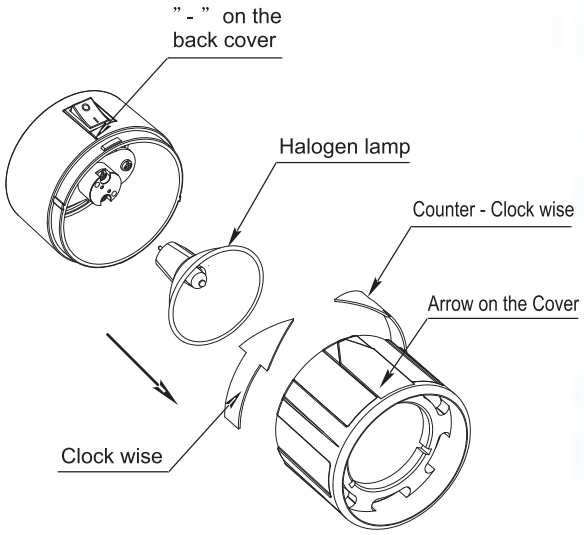
SGS CE

FEATURES

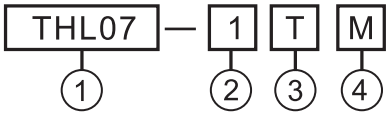
- Flexible Conduit
- Tempered Glass
- Osram Halogen lamp 12V 20W
- 5 Kinds of the
- 1200 Lux at 50 cm distance

HALOGEN LAMP

Replacement :
Step1. To turn counter – clockwise to release the cover.
Step2. Replace Halogen lamp.
Step3. To Align the "Arrow on the cover" and the "- on the back cover" then turn clockwise to fit the cover.



MODEL DESIGNATION

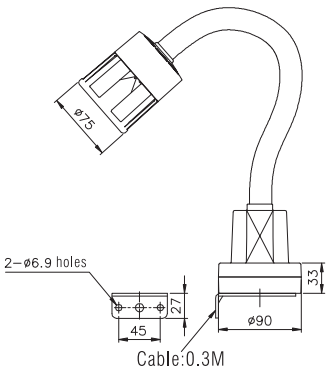


Item	Signal	Description
1.Type	THL07	70mm
2.Voltage	1	110 VAC
	2	220 VAC
	9	12 VAC/DC
3.Length of arm	T	Flexible conduit 460mm
	L	310mm+390mm(Only 12V)
	M	310mm+115mm(Only 12V)
	R	220mm+220mm
	S	No Arm.
4.Base	L	L Type base
	M	Magnetic base
	T	Triangle base
	S4	45*45mm
	S6	60*60mm

DIMENSIONS

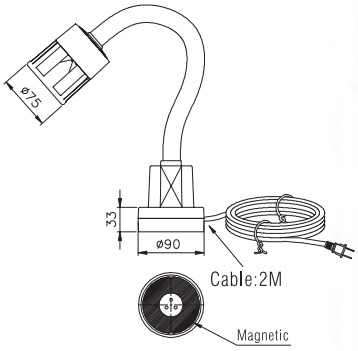
THL07-TL — 3,355.-





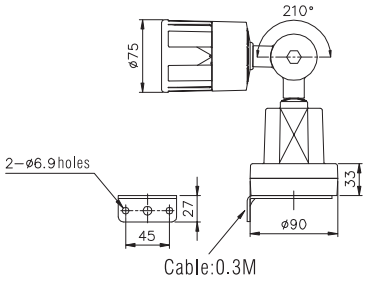
THL07-TM — 3,685.-





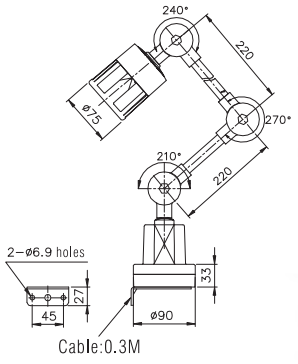
THL07-SL — 3,355.-





THL07-RL — 3,685.-





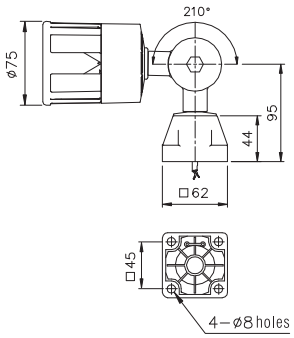
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

LED MACHINE LIGHT
โคมไฟส่องเครื่องจักรใช้หลอด HALOGEN
Ø70

DIMENSIONS

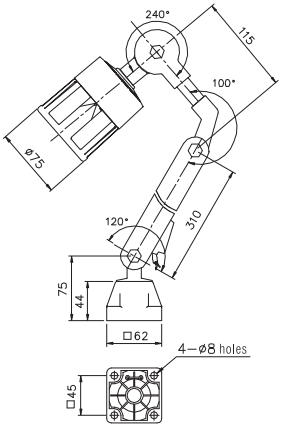
THL07-SS4	2,950.-
THL07-SS6	2,950.-
THL07-ST	2,950.-





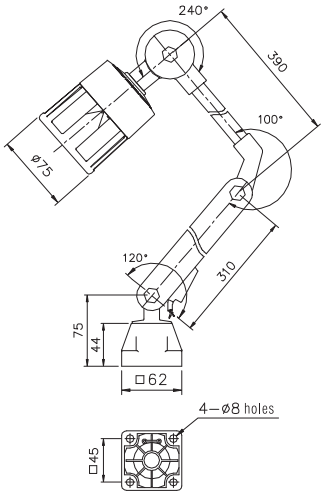
THL07-9MS4	3,355.-
THL07-9MS6	3,355.-
THL07-9MT	3,355.-





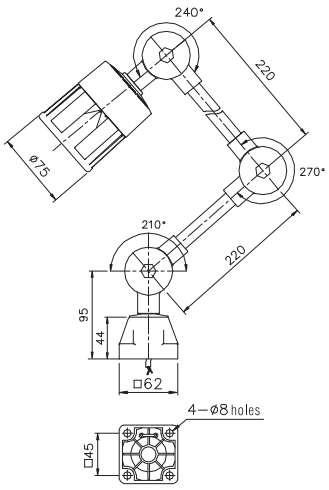
THL07-9LS4	3,555.-
THL07-9LS6	3,555.-
THL07-9LT	3,555.-





THL07-RS4	3,685.-
THL07-RS6	3,685.-
THL07-RT	3,685.-

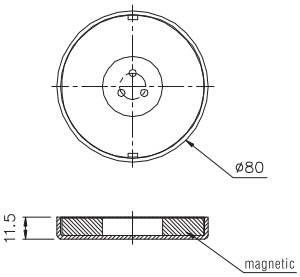




BASE DIMENSIONS

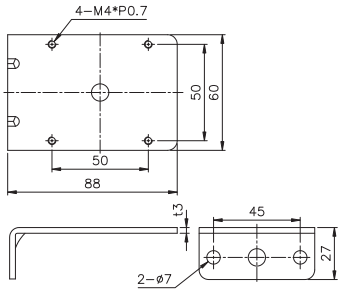
MAGNETIC BASE
THL07-M





L TYPE
THL07-L





WALL MOUNT WARNING LIGHT

ชนิดกะพริบ กะพริบพร้อมเสียงออด และแบบ FLUORESCENT

FEATURES

- 3 Signal lights in a lanes (Red, Orange, Green)
- Ligespan. : LED 50,000 hrs min.
- Intermittence Buzzer : 80db/1m min.
- Frequency : 60 cycles/min
- Protection : TPHL & TPHF : IP53
- TPHB & TPHS : IP50

MODEL DESIGNATION

TPH L - 2

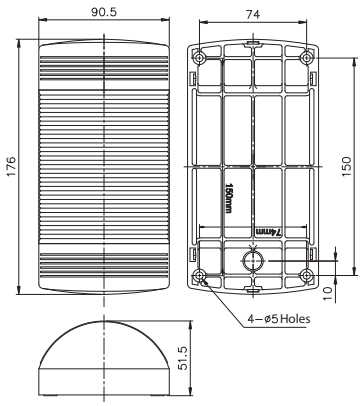
① ② ③

Designation	Signal	Description
1.Type	TPH	Wall mount warning light
2.Function	L	Standard
	F	Flash
	B	Buzzer
	S	Flash + Buzzer
3.Voltage	1	110 VAC
	2	220 VAC
	7	24 VAC/DC
	9	12 VAC/DC

DIMENSIONS

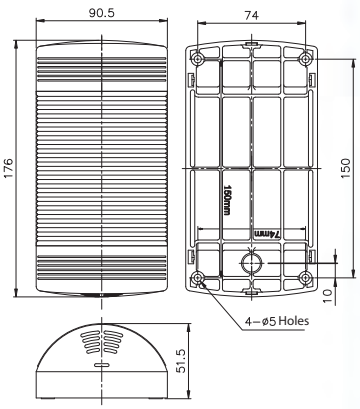
TPHL -
TPHF (ชนิดกะพริบ) -





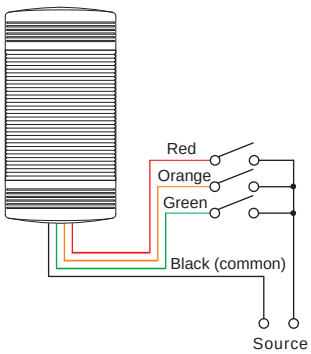
TPHS ชนิดกะพริบพร้อมสัญญาณเสียงออด -
หมายเหตุ : สามารถต่อกะพริบพร้อมสัญญาณเสียงออด



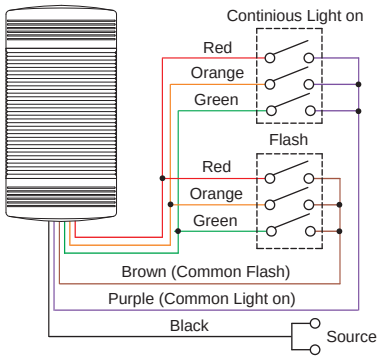


DIMENSIONS

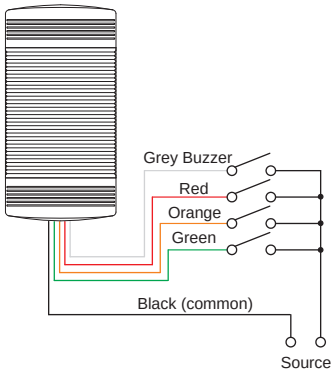
TPHL



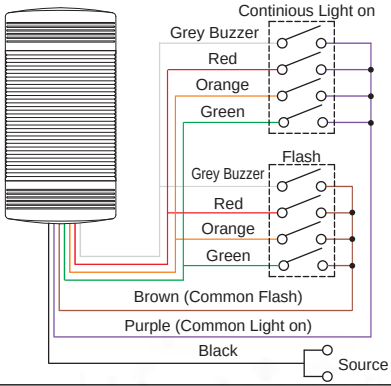
TPHF



TPHB



TPHS



*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend WALL MOUNT WARNING LIGHT

ชนิดกะพริบ กะพริบพร้อมเสียงออด และแบบ FLUORESCENT

FEATURES

- Tendered glass.
- Protection : IP67.
- Osram PL Light.
- Ligespan. : 10,000 hrs.
- High safety : Fuse in the Electronic Stabilizer will be burnt immediately if any unusual situation happen.
- Instantaneously started by Electronic Stabilizer.

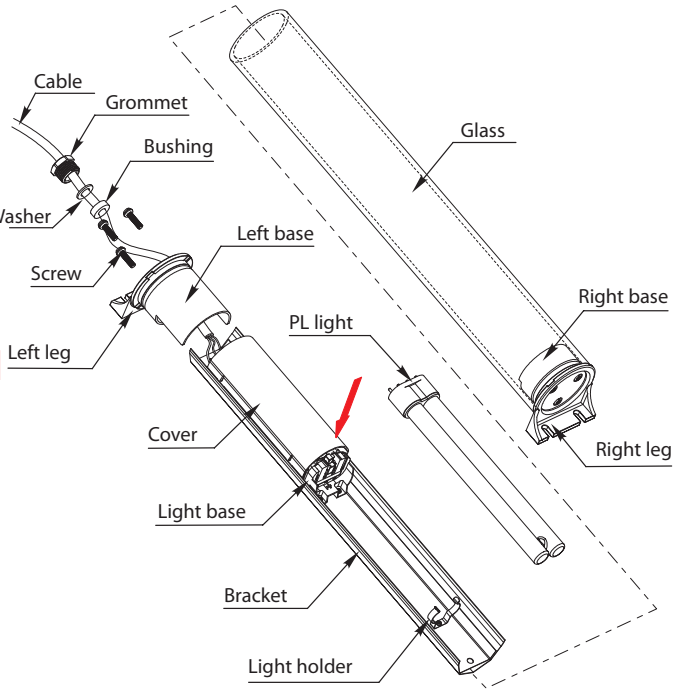
MODEL DESIGNATION

TFL - 18 2 T

① ② ③ ④

Designation	Signal	Description
1.Type	TFL	Fluorescent light
2.PL	18	18W
	36	36W
3.Voltage	1	120 VAC
	2	230 VAC
	7	24 VAC
	7D	24 VAC
4.Fix type		Plastic base
	T	Steel circle

LIGHT REPLACEMENT

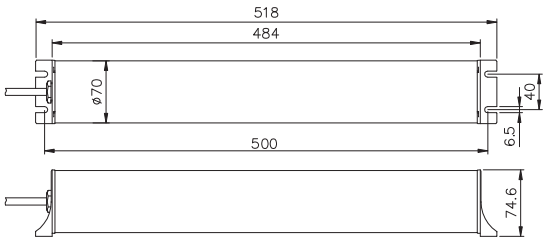


DIMENSIONS

TFL-18 (Plastic base) **7,780.-**
TFL-18T (Steel circle) **7,780.-**



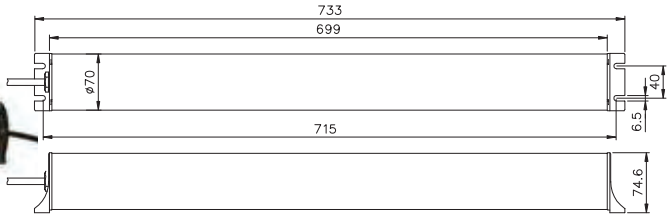
หลอด Fluorescent ยี่ห้อ OSRAM DULUX L 18/840



TFL-36 (Plastic base) **9,660.-**
TFL-36T (Steel circle) **9,660.-**



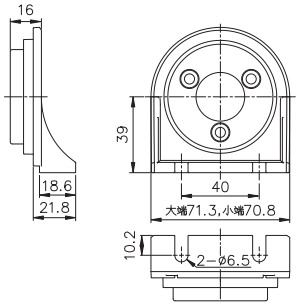
หลอด Fluorescent ยี่ห้อ OSRAM DULUX L 38/840



BASE DIMENSIONS

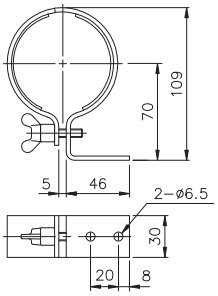
PLASTIC BASE





STEEL CIRCLE





tend TOWER LIGHT
ทาวเวอร์ไลท์

FEATURES

- Tend tower light can be installed in any machine as a status indicator by showing the color as a status indicator by showing the color change of light and audible alarm.
- Tower light can be customer-made to meet different needs.
- Internal spring suspension can avoid damage to the bulb due to machines vibration.
- Flexible wiring design : Steady, flashing of Flexible wiring design : Steady, flashing of alarm are achievable through wiring by end user.
- Audio alarm buzzes at 90 db/30 cm.
- Both bulb base for incandescent bulb & LED is BA15S. So it is easy to change bulb type.

MODEL DESIGNATIONS

TPT L 6 - L 2 3 ROG - S
(1) (2) (3) (4) (5) (6) (7) (8)

Item	Signal	Description
1.Mounting Method	TPT	Pole Mount
	TPW	Tray Mount
	TPF	Tented Type
	TPA	Side Hitch Type
2.Functional	L	Continuous light
	F	Continuous or flashing
	S	Continuous or flashing with audible alarm
	B	Audible alarm light
3.Diameter	4	Ø40 mm (NO TPFL)
	5	Ø50 mm
	6	Ø60 mm
	7	Ø70 mm
4.Bulb	Space	Incandescent
	L	LED
5.Voltage	1	110 VAC
	2	220 VAC
	7	24 VAC/DC
	9	12 VAC/DC
6.Section	1 - 5	1 - 5
7.Lens	R	Red
	O	Orange
	G	Green
	B	Blue
	W	White
8.Aluminum tube length	Space	Standard Length, TPT:288 mm, TPF:43 mm
	S	Special Length, TPT : 138 mm
		Special Length, TPF : 193 mm

RATED CURRENT FOR BULBS AND BUZZERS (REFERANCE ONLY)

Incandescent		Price
S15-I49 (12VAC/DC)	0.5A	55.-
S15-I47 (24VAC/DC)	0.25A	55.-
S15-I41 (110VAC)	0.05A	65.-
S15-I42 (220VAC)	0.03A	65.-
S15-I59 (12VAC/DC)	0.7A	55.-
S15-I57 (24VAC/DC)	0.35A	55.-
S15-I51 (110VAC)	0.06A	65.-
S15-I52 (220VAC)	0.03A	65.-
S15-I69 (12VAC/DC)	0.8A	55.-
S15-I67 (24VAC/DC)	0.4A	55.-
S15-I61 (110VAC)	0.08A	65.-
S15-I62 (220VAC)	0.04A	65.-

BULB MODEL DESIGNATIONS

S15 - L4 2 R
(1) (2) (3) (4)

Item	Signal	Description
1.Base type	S15	BA15S Bulb
2.Lens diameter	I4	Ø 40 mm 5W Incandescent
	I5	Ø 50 mm 8W Incandescent
	I6	Ø 60 mm / 70 mm 10W Incandescent
	L4	Ø 40 mm LED
	L5	Ø 50 mm / Ø 60 mm / Ø 70 mm, LED
3.Voltage	1	110 VAC
	2	220 VAC
	7	24 VAC/DC
	9	12 VAC/DC
4.Color	Space	Incandescent
	R	Red LED
	O	Orange LED
	G	Green LED
	B	Blue LED
	W	White LED

LED LAMP FOR TOWER LIGHT

MODEL DESIGNATIONS

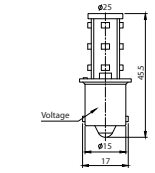
S15 - L4 2 R
(1) (2) (3) (4)

Item	Signal	Description
1.Base type	S15	BA15S base
2.Lens diameter	L4	LED x 8
	L5	LED x 15
3.Voltage	1	110 VAC/DC
	2	220 VAC/DC
	7	24 VAC/DC
	9	12 VAC/DC
4.Color	R	Red LED
	O	Orange LED
	G	Green LED
	BL	Blue LED

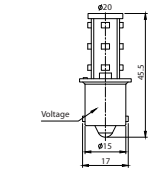
S15-L4 : for TWR-08 only S15-L5 : for TWF-10 and TWF-12

LAMP DIMENSIONS

S15-L4



S15-L5

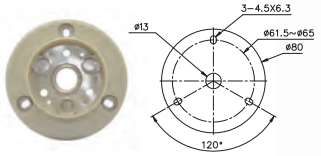


LED		Price R, O, G, W, BL
S15-L49 (12VAC/DC)	0.1A	440.-
S15-L47 (24VAC/DC)	0.03A	440.-
S15-L41 (110VAC)	0.02A	440.-
S15-L42 (220VAC)	0.02A	440.-
S15-L59 (12VAC/DC)	0.15A	440.-
S15-L57 (24VAC/DC)	0.04A	440.-
S15-L51 (110VAC)	0.02A	440.-
S15-L52 (220VAC)	0.02A	440.-

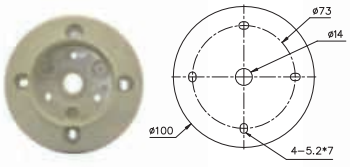
Buzzer		Price
12 V AC/DC	0.08A	
24 V AC/DC	0.02A	
110 V AC	0.01A	
220 V AC	0.01A	

Mounting Holes - Tray Mount

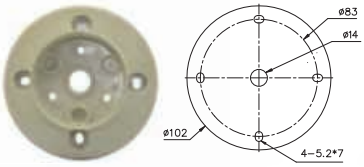
TPW□4 / TPW□5



TPW□6



TPW□7



ราคาอะไหล่

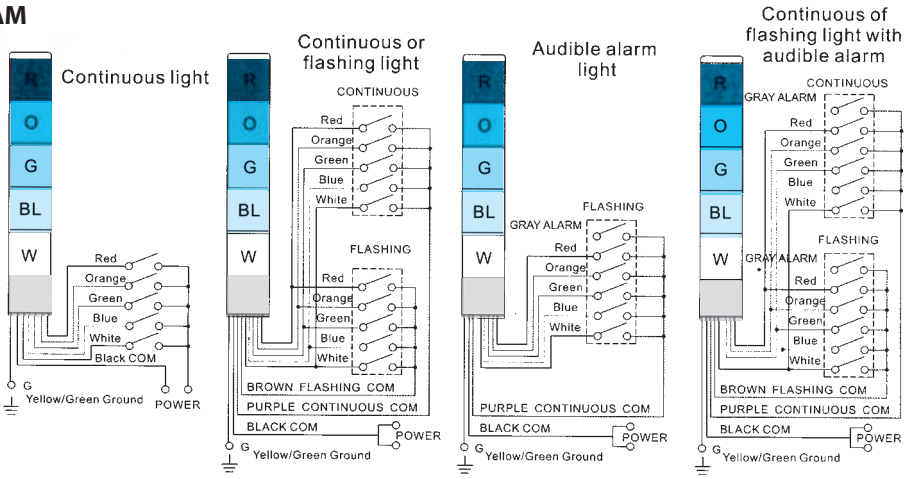
บอร์ดกะพริบ 1,075.-
Flashing board

เลนส์ 135.-
TPTL-L Lens

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

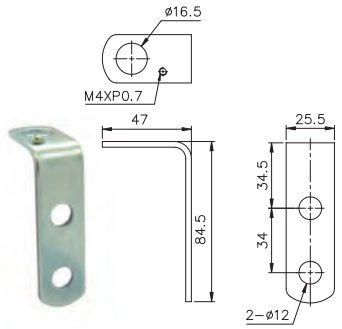
tend TOWER LIGHT
ทาวเวอร์ไลท์

WIRING DIAGRAM

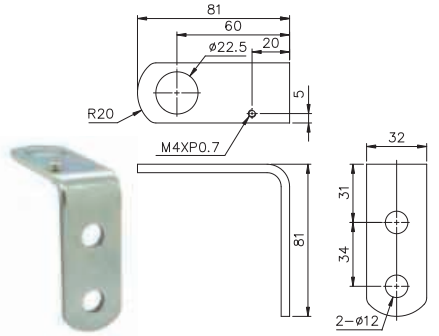


MOUNTING HOLES

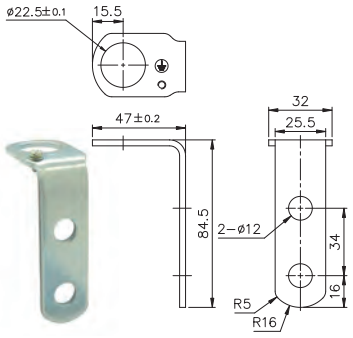
POLE MOUNTING BRACKET
Used TPTL4



Used TPT□6/TPT□7

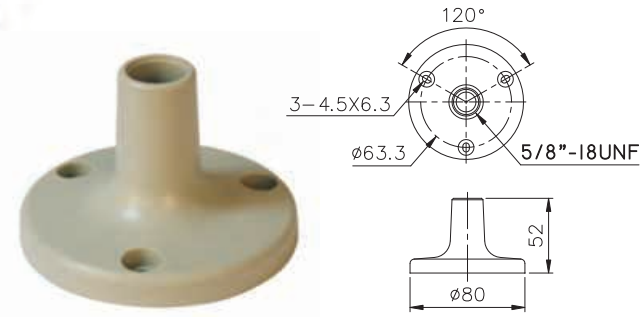


Used TPTF4/TPTS4/TPTB4 TPT□5

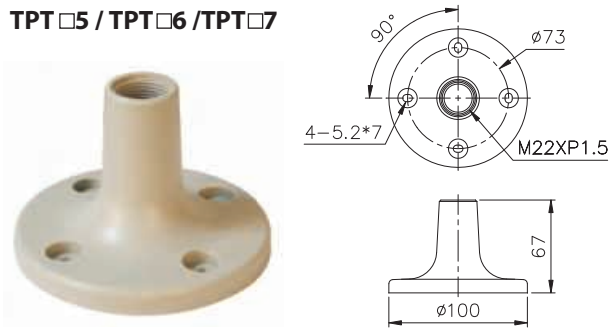


MOUNTING HOLES — POLE MOUNTING BRACKET (OPTIONAL)

TPTL-S **220.-**
Used TPTL4

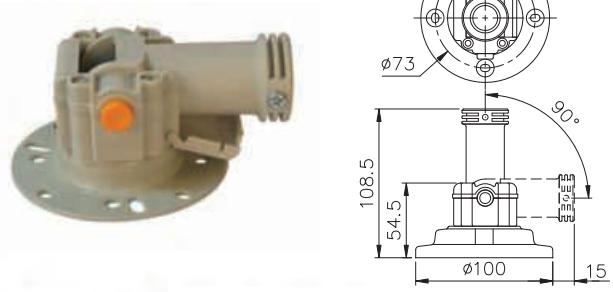


TPTL6-S **220.-**
Used TPTS4 / TPTF4 / TPTB4 / TPT□5 / TPT□6 /TPT□7



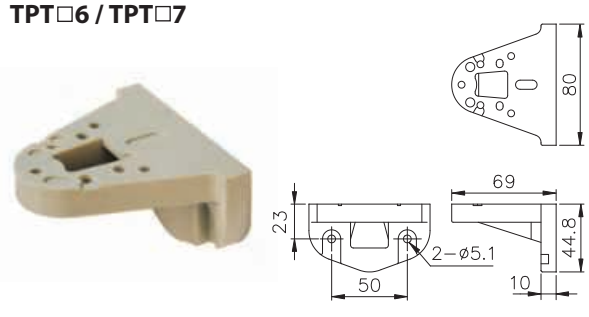
• FOLDABLE MOUNTING BRACKET (OPTIONAL)

TPTL6-F **640.-**
Used TPTS4 / TPTF4 / TPTB4 / TPT□5 / TPT□6 /TPT□7



• SIDE MOUNTING BRACKET (OPTIONAL)

TPTL6-A **330.-**
Used TPT□4 / TPT□5 / TPT□6 / TPT□7



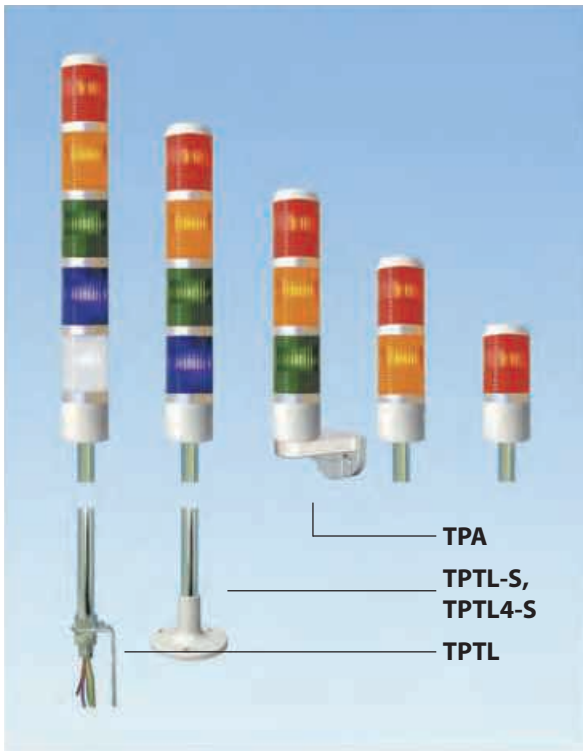
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง

Ø40

TPTL4



TPWL4



Tower Light Ø40 mm Pole Mount-Continuous Light
12V, 24V, 110V, 220V ชนิดไฟต่อเนื่อง Ø40 มม.

Type		Description	Price
TPTL4-1	หลอดธรรมดา	1 Section	1,850.-
TPTL4-2	หลอดธรรมดา	2 Section	2,175.-
TPTL4-3	หลอดธรรมดา	3 Section	2,500.-
TPTL4-4	หลอดธรรมดา	4 Section	2,820.-
TPTL4-5	หลอดธรรมดา	5 Section	3,135.-
TPTL4L-1 (LED)	หลอด LED	1 Section	2,275.-
TPTL4L-2 (LED)	หลอด LED	2 Section	2,610.-
TPTL4L-3 (LED)	หลอด LED	3 Section	2,995.-
TPTL4L-4 (LED)	หลอด LED	4 Section	3,565.-
TPTL4L-5 (LED)	หลอด LED	5 Section	4,160.-

Tower Light Ø40 mm Tray Mount-Continuous Ligh
12V, 24V, 110V, 220V ชนิดไฟต่อเนื่อง Ø40 มม.

Type		Description	Price
TPWL4-1	หลอดธรรมดา	1 Section	1,475.-
TPWL4-2	หลอดธรรมดา	2 Section	1,895.-
TPWL4-3	หลอดธรรมดา	3 Section	2,255.-
TPWL4-4	หลอดธรรมดา	4 Section	2,710.-
TPWL4-5	หลอดธรรมดา	5 Section	3,025.-
TPWL4L-1 (LED)	หลอด LED	1 Section	1,660.-
TPWL4L-2 (LED)	หลอด LED	2 Section	2,140.-
TPWL4L-3 (LED)	หลอด LED	3 Section	2,760.-
TPWL4L-4 (LED)	หลอด LED	4 Section	3,165.-
TPWL4L-5 (LED)	หลอด LED	5 Section	3,855.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT / FLASH LIGHT / AUDIBLE LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง / ชนิดกะพริบ / ชนิดพร้อมไซเรน

Ø40

TPTF4 / TPTS4 / TPTB4



TPWF4 / TPWS4 / TPWB4



Tower Light ø40 mm Pole Mount Continuous or Flashing Light 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบ Ø40 มม.

Type			Description	Price
TPTF4-1		หลอดธรรมดา	1 Section	2,310.-
TPTF4-2		หลอดธรรมดา	2 Section	2,685.-
TPTF4-3		หลอดธรรมดา	3 Section	3,190.-
TPTF4-4		หลอดธรรมดา	4 Section	3,520.-
TPTF4-5		หลอดธรรมดา	5 Section	3,850.-
TPTF4L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,545.-
TPTF4L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,015.-
TPTF4L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,490.-
TPTF4L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	3,975.-
TPTL4L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,455.-

Tower Light ø40 mm Tray Mount Continuous or Flashing Light 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบ Ø40 มม.

Type			Description	Price
TPWF4-1		หลอดธรรมดา	1 Section	1,695.-
TPWF4-2		หลอดธรรมดา	2 Section	2,145.-
TPWF4-3		หลอดธรรมดา	3 Section	2,510.-
TPWF4-4		หลอดธรรมดา	4 Section	3,025.-
TPWF4-5		หลอดธรรมดา	5 Section	3,410.-
TPWF4L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	1,900.-
TPWF4L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	2,635.-
TPWF4L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,190.-
TPWF4L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	3,595.-
TPWF4L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,350.-

Tower Light ø40mm Pole Mount Continuous or Flashing Light with alarm 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบพร้อมไซเรน Ø40 มม.

Type			Description	Price
TPTS4-1		หลอดธรรมดา	1 Section	2,930.-
TPTS4-2		หลอดธรรมดา	2 Section	3,235.-
TPTS4-3		หลอดธรรมดา	3 Section	3,555.-
TPTS4-4		หลอดธรรมดา	4 Section	3,880.-
TPTS4-5		หลอดธรรมดา	5 Section	4,205.-
TPTS4L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	3,350.-
TPTS4L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,875.-
TPTS4L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	4,315.-
TPTS4L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,785.-
TPTS4L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	5,280.-

Tower Light ø40 mm Tray Mount Continuous or Flashing Light with Alarm 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบพร้อมไซเรน Ø40 มม.

Type			Description	Price
TPWS4-1		หลอดธรรมดา	1 Section	2,380.-
TPWS4-2		หลอดธรรมดา	2 Section	2,915.-
TPWS4-3		หลอดธรรมดา	3 Section	3,355.-
TPWS4-4		หลอดธรรมดา	4 Section	3,770.-
TPWS4-5		หลอดธรรมดา	5 Section	4,095.-
TPWS4L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,655.-
TPWS4L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,190.-
TPWS4L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,675.-
TPWS4L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,170.-
TPWS4L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,675.-

Tower Light ø40 mm Pole mount Continuous Light-Audible Alarm Light 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø40 มม.

Type			Description	Price
TPTB4-1		หลอดธรรมดา	1 Section	2,295.-
TPTB4-2		หลอดธรรมดา	2 Section	2,615.-
TPTB4-3		หลอดธรรมดา	3 Section	2,965.-
TPTB4-4		หลอดธรรมดา	4 Section	3,300.-
TPTB4-5		หลอดธรรมดา	5 Section	3,620.-
TPTB4L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,720.-
TPTB4L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,460.-
TPTB4L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	4,050.-
TPTB4L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,565.-
TPTB4L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	5,085.-

Tower Light ø40 mm Tray mount Continuous Light-Audible Alarm Light 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø40 มม.

Type			Description	Price
TPWB4-1		หลอดธรรมดา	1 Section	2,185.-
TPWB4-2		หลอดธรรมดา	2 Section	2,505.-
TPWB4-3		หลอดธรรมดา	3 Section	2,855.-
TPWB4-4		หลอดธรรมดา	4 Section	3,190.-
TPWB4-5		หลอดธรรมดา	5 Section	3,510.-
TPWB4L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,500.-
TPWB4L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	2,970.-
TPWB4L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,520.-
TPWB4L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,015.-
TPWB4L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,455.-

หมายเหตุ รุ่น TPTF, TPWF, TPTS, TPWS ผู้ใช้สามารถเลือกต่อไฟชนิดติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

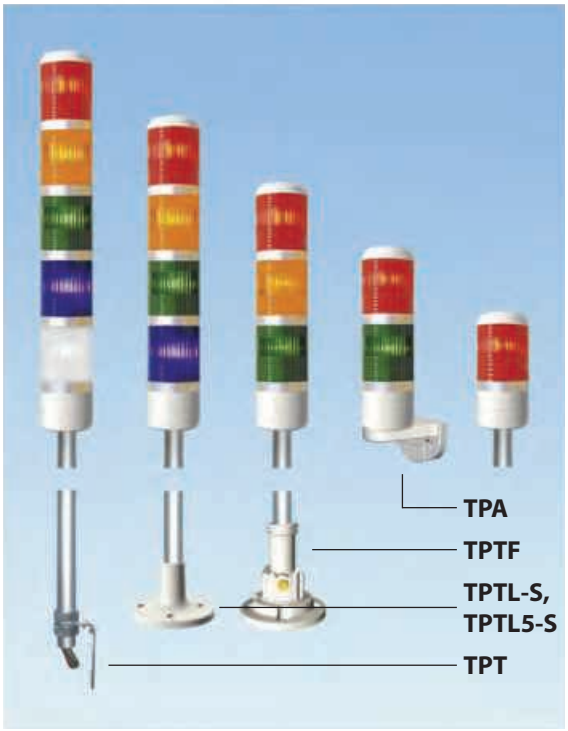
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง

Ø50

TPTL5



TPWL5



Tower Light Ø50 mm Pole Mount-Continuous Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่อง Ø 50 มม.

Type		Description	Price
TPTL5-1	หลอดธรรมดา	1 Section	1,320.-
TPTL5-2	หลอดธรรมดา	2 Section	1,650.-
TPTL5-3	หลอดธรรมดา	3 Section	1,905.-
TPTL5-4	หลอดธรรมดา	4 Section	2,145.-
TPTL5-5	หลอดธรรมดา	5 Section	2,450.-
TPTL5L-1 (LED)	หลอด LED	1 Section	1,745.-
TPTL5L-2 (LED)	หลอด LED	2 Section	2,500.-
TPTL5L-3 (LED)	หลอด LED	3 Section	3,175.-
TPTL5L-4 (LED)	หลอด LED	4 Section	3,810.-
TPTL5L-5 (LED)	หลอด LED	5 Section	4,400.-

Tower Light Ø50 mm Tray Mount-Continuous Ligh
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่อง Ø50 มม.

Type		Description	Price
TPWL5-1	หลอดธรรมดา	1 Section	1,210.-
TPWL5-2	หลอดธรรมดา	2 Section	1,540.-
TPWL5-3	หลอดธรรมดา	3 Section	1,795.-
TPWL5-4	หลอดธรรมดา	4 Section	2,030.-
TPWL5-5	หลอดธรรมดา	5 Section	2,340.-
TPWL5L-1 (LED)	หลอด LED	1 Section	1,710.-
TPWL5L-2 (LED)	หลอด LED	2 Section	2,350.-
TPWL5L-3 (LED)	หลอด LED	3 Section	2,935-
TPWL5L-4 (LED)	หลอด LED	4 Section	3,775.-
TPWL5L-5 (LED)	หลอด LED	5 Section	3,995.-

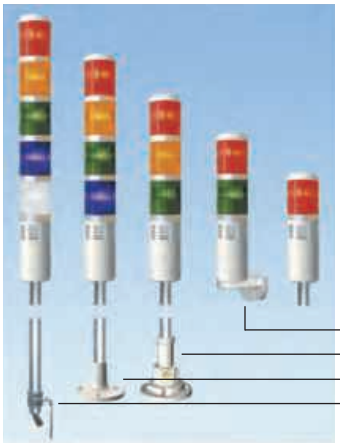
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT / FLASH LIGHT / AUDIBLE LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง / ชนิดกะพริบ / ชนิดพร้อมไซเรน

Ø50

TPTF5 / TPTS5 / TPTB5



TPWF5 / TPWS5 / TPWB5



Tower Light Ø50 mm Pole Mount Continuous or Flashing Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบ Ø50 มม.

Type			Description	Price
TPTF5-1		หลอดธรรมดา	1 Section	2,125.-
TPTF5-2		หลอดธรรมดา	2 Section	2,395.-
TPTF5-3		หลอดธรรมดา	3 Section	2,720.-
TPTF5-4		หลอดธรรมดา	4 Section	3,055.-
TPTF5-5		หลอดธรรมดา	5 Section	3,375.-
TPTF5L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,550.-
TPTF5L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,180.-
TPTF5L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,720.-
TPTF5L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,250.-
TPTF5L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,775.-

Tower Light Ø50 mm Tray Mount Continuous or Flashing Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบ Ø50 มม.

Type			Description	Price
TPWF5-1		หลอดธรรมดา	1 Section	1,770.-
TPWF5-2		หลอดธรรมดา	2 Section	2,285.-
TPWF5-3		หลอดธรรมดา	3 Section	2,500.-
TPWF5-4		หลอดธรรมดา	4 Section	2,945.-
TPWF5-5		หลอดธรรมดา	5 Section	3,265.-
TPWF5L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,025.-
TPWF5L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	2,760.-
TPWF5L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,290.-
TPWF5L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,025.-
TPWF5L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,775.-

Tower Light Ø50 mm Pole Mount Continuous or Flashing Light with Alarm
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบพร้อมไซเรน Ø50 มม.

Type			Description	Price
TPTS5-1		หลอดธรรมดา	1 Section	3,080.-
TPTS5-2		หลอดธรรมดา	2 Section	3,670.-
TPTS5-3		หลอดธรรมดา	3 Section	3,850.-
TPTS5-4		หลอดธรรมดา	4 Section	4,260.-
TPTS5-5		หลอดธรรมดา	5 Section	4,620.-
TPTS5L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	3,505.-
TPTS5L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	4,060.-
TPTS5L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	4,580.-
TPTS5L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	5,085.-
TPTS5L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	5,570.-

Tower Light Ø 50 mm Tray Mount Continuous or Flashing Light with Alarm
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบพร้อมไซเรน Ø50 มม.

Type			Description	Price
TPWS5-1		หลอดธรรมดา	1 Section	2,575.-
TPWS5-2		หลอดธรรมดา	2 Section	3,040.-
TPWS5-3		หลอดธรรมดา	3 Section	3,410.-
TPWS5-4		หลอดธรรมดา	4 Section	4,150.-
TPWS5-5		หลอดธรรมดา	5 Section	4,510.-
TPWS5L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,805.-
TPWS5L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,370.-
TPWS5L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,895.-
TPWS5L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,425.-
TPWS5L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,895.-

Tower Light Ø50 mm Pole Mount Continuous Light-Audible Alarm Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø50 มม.

Type			Description	Price
TPTB5-1		หลอดธรรมดา	1 Section	2,445.-
TPTB5-2		หลอดธรรมดา	2 Section	2,725.-
TPTB5-3		หลอดธรรมดา	3 Section	3,220.-
TPTB5-4		หลอดธรรมดา	4 Section	3,645.-
TPTB5-5		หลอดธรรมดา	5 Section	4,030.-
TPTB5L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,870.-
TPTB5L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,570.-
TPTB5L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	4,125.-
TPTB5L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,665.-
TPTB5L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	5,350.-

Tower Light Ø50 mm Tray Mount Continuous Light-Audible Alarm Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø50 มม.

Type			Description	Price
TPWB5-1		หลอดธรรมดา	1 Section	2,180.-
TPWB5-2		หลอดธรรมดา	2 Section	2,615.-
TPWB5-3		หลอดธรรมดา	3 Section	3,110.-
TPWB5-4		หลอดธรรมดา	4 Section	3,535.-
TPWB5-5		หลอดธรรมดา	5 Section	3,920.-
TPWB5L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	2,420.-
TPWB5L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	3,080.-
TPWB5L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	3,500.-
TPWB5L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	4,125.-
TPWB5L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	4,620.-

หมายเหตุ รุ่น TPTF, TPWF, TPTS, TPWS ผู้ใช้สามารถเลือกต่อไฟชนิดติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

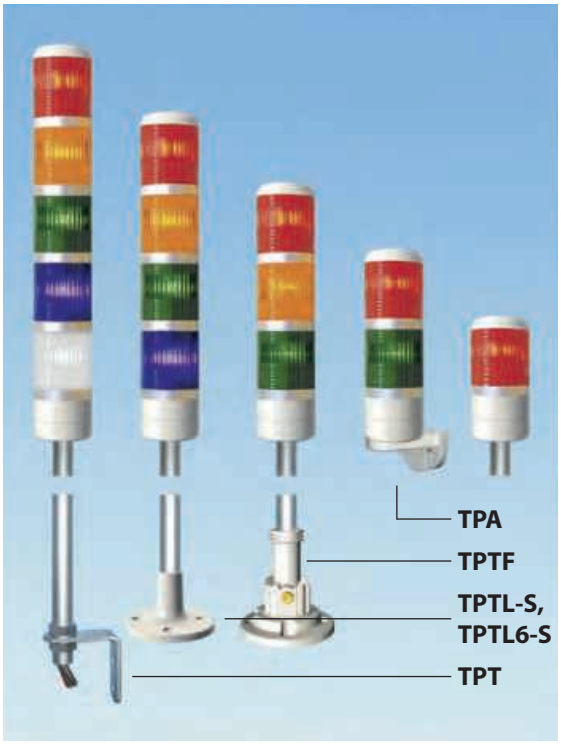
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง

Ø60

TPTL6



TPWL6



● **Tower Light Ø60 mm Pole Mount-Continuous Light**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่อง Ø60 มม.

Type		Description	Price
TPTL6-1	หลอดธรรมดา	1 Section	1,915.-
TPTL6-2	หลอดธรรมดา	2 Section	2,390.-
TPTL6-3	หลอดธรรมดา	3 Section	2,860.-
TPTL6-4	หลอดธรรมดา	4 Section	3,345.-
TPTL6-5	หลอดธรรมดา	5 Section	4,400.-
TPTL6L-1 (LED)	หลอด LED	1 Section	2,200.-
TPTL6L-2 (LED)	หลอด LED	2 Section	2,875.-
TPTL6L-3 (LED)	หลอด LED	3 Section	3,445.-
TPTL6L-4 (LED)	หลอด LED	4 Section	4,160.-
TPTL6L-5 (LED)	หลอด LED	5 Section	4,755.-

● **Tower Light Ø60 mm Tray Mount-Continuous Ligh**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่อง Ø60 มม.

Type		Description	Price
TPWL6-1	หลอดธรรมดา	1 Section	1,485.-
TPWL6-2	หลอดธรรมดา	2 Section	2,070.-
TPWL6-3	หลอดธรรมดา	3 Section	2,570.-
TPWL6-4	หลอดธรรมดา	4 Section	3,175.-
TPWL6-5	หลอดธรรมดา	5 Section	3,695.-
TPWL6L-1 (LED)	หลอด LED	1 Section	1,775.-
TPWL6L-2 (LED)	หลอด LED	2 Section	2,510.-
TPWL6L-3 (LED)	หลอด LED	3 Section	3,215.-
TPWL6L-4 (LED)	หลอด LED	4 Section	3,660.-
TPWL6L-5 (LED)	หลอด LED	5 Section	4,280.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT / FLASH LIGHT / AUDIBLE LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง / ชนิดกะพริบ / ชนิดพร้อมไซเรน

Ø60

TPTF6 / TPTS6 / TPTB6



TPWF6 / TPWS6 / TPWB6



Tower Light Ø60 mm Pole Mount Continuous or Flashing Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบ Ø60 มม.

Type		Description	Price
TPTF6-1	หลอดธรรมดา	1 Section	2,365.-
TPTF6-2	หลอดธรรมดา	2 Section	2,905.-
TPTF6-3	หลอดธรรมดา	3 Section	3,455.-
TPTF6-4	หลอดธรรมดา	4 Section	3,960.-
TPTF6-5	หลอดธรรมดา	5 Section	4,555.-
TPTF6L-1 (LED) R,O,G,W,BL	หลอด LED	1 Section	2,655.-
TPTF6L-2 (LED) R,O,G,W,BL	หลอด LED	2 Section	3,260.-
TPTF6L-3 (LED) R,O,G,W,BL	หลอด LED	3 Section	3,850.-
TPTF6L-4 (LED) R,O,G,W,BL	หลอด LED	4 Section	4,455.-
TPTF6L-5 (LED) R,O,G,W,BL	หลอด LED	5 Section	5,060.-

Tower Light Ø60 mm Tray Mount Continuous or Flashing Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบ Ø60 มม.

Type		Description	Price
TPWF6-1	หลอดธรรมดา	1 Section	1,760.-
TPWF6-2	หลอดธรรมดา	2 Section	2,180.-
TPWF6-3	หลอดธรรมดา	3 Section	2,685.-
TPWF6-4	หลอดธรรมดา	4 Section	3,135.-
TPWF6-5	หลอดธรรมดา	5 Section	3,740.-
TPWF6L-1 (LED) R,O,G,W,BL	หลอด LED	1 Section	2,300.-
TPWF6L-2 (LED) R,O,G,W,BL	หลอด LED	2 Section	2,660.-
TPWF6L-3 (LED) R,O,G,W,BL	หลอด LED	3 Section	3,545.-
TPWF6L-4 (LED) R,O,G,W,BL	หลอด LED	4 Section	3,910.-
TPWF6L-5 (LED) R,O,G,W,BL	หลอด LED	5 Section	4,565.-

Tower Light Ø60 mm Pole Mount Continuous or Flashing Light with Alarm
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบพร้อมไซเรน Ø60 มม.

Type		Description	Price
TPTS6-1	หลอดธรรมดา	1 Section	2,930.-
TPTS6-2	หลอดธรรมดา	2 Section	3,410.-
TPTS6-3	หลอดธรรมดา	3 Section	3,905.-
TPTS6-4	หลอดธรรมดา	4 Section	4,525.-
TPTS6-5	หลอดธรรมดา	5 Section	5,105.-
TPTS6L-1 (LED) R,O,G,W,BL	หลอด LED	1 Section	3,390.-
TPTS6L-2 (LED) R,O,G,W,BL	หลอด LED	2 Section	4,060.-
TPTS6L-3 (LED) R,O,G,W,BL	หลอด LED	3 Section	4,525.-
TPTS6L-4 (LED) R,O,G,W,BL	หลอด LED	4 Section	5,215.-
TPTS6L-5 (LED) R,O,G,W,BL	หลอด LED	5 Section	5,810.-

Tower Light Ø60 mm Tray Mount Continuous or Flashing Light with Alarm
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือชนิดกะพริบพร้อมไซเรน Ø60 มม.

Type		Description	Price
TPWS6-1	หลอดธรรมดา	1 Section	2,245.-
TPWS6-2	หลอดธรรมดา	2 Section	2,710.-
TPWS6-3	หลอดธรรมดา	3 Section	3,225.-
TPWS6-4	หลอดธรรมดา	4 Section	3,930.-
TPWS6-5	หลอดธรรมดา	5 Section	4,620.-
TPWS6L-1 (LED) R,O,G,W,BL	หลอด LED	1 Section	2,620.-
TPWS6L-2 (LED) R,O,G,W,BL	หลอด LED	2 Section	3,280.-
TPWS6L-3 (LED) R,O,G,W,BL	หลอด LED	3 Section	3,810.-
TPWS6L-4 (LED) R,O,G,W,BL	หลอด LED	4 Section	4,500.-
TPWS6L-5 (LED) R,O,G,W,BL	หลอด LED	5 Section	5,170.-

Tower Light Ø60 mm Pole Mount Continuous Light-Audible Alarm Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø60 มม.

Type		Description	Price
TPTB6-1	หลอดธรรมดา	1 Section	2,510.-
TPTB6-2	หลอดธรรมดา	2 Section	3,040.-
TPTB6-3	หลอดธรรมดา	3 Section	3,300.-
TPTB6-4	หลอดธรรมดา	4 Section	4,095.-
TPTB6-5	หลอดธรรมดา	5 Section	4,620.-
TPTB6L-1 (LED) R,O,G,W,BL	หลอด LED	1 Section	2,860.-
TPTB6L-2 (LED) R,O,G,W,BL	หลอด LED	2 Section	3,520.-
TPTB6L-3 (LED) R,O,G,W,BL	หลอด LED	3 Section	3,960.-
TPTB6L-4 (LED) R,O,G,W,BL	หลอด LED	4 Section	4,730.-
TPTB6L-5 (LED) R,O,G,W,BL	หลอด LED	5 Section	5,324.-

Tower Light Ø60 mm Tray Mount Continuous Light-Audible Alarm Light
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø60 มม.

Type		Description	Price
TPWB6-1	หลอดธรรมดา	1 Section	2,060.-
TPWB6-2	หลอดธรรมดา	2 Section	2,585.-
TPWB6-3	หลอดธรรมดา	3 Section	3,105.-
TPWB6-4	หลอดธรรมดา	4 Section	3,785.-
TPWB6-5	หลอดธรรมดา	5 Section	4,565.-
TPWB6L-1 (LED) R,O,G,W,BL	หลอด LED	1 Section	2,280.-
TPWB6L-2 (LED) R,O,G,W,BL	หลอด LED	2 Section	2,930.-
TPWB6L-3 (LED) R,O,G,W,BL	หลอด LED	3 Section	3,445.-
TPWB6L-4 (LED) R,O,G,W,BL	หลอด LED	4 Section	4,115.-
TPWB6L-5 (LED) R,O,G,W,BL	หลอด LED	5 Section	4,920.-

หมายเหตุ รุ่น TPTF, TPWF, TPTS, TPWS ผู้ใช้สามารถเลือกต่อไฟชนิดติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

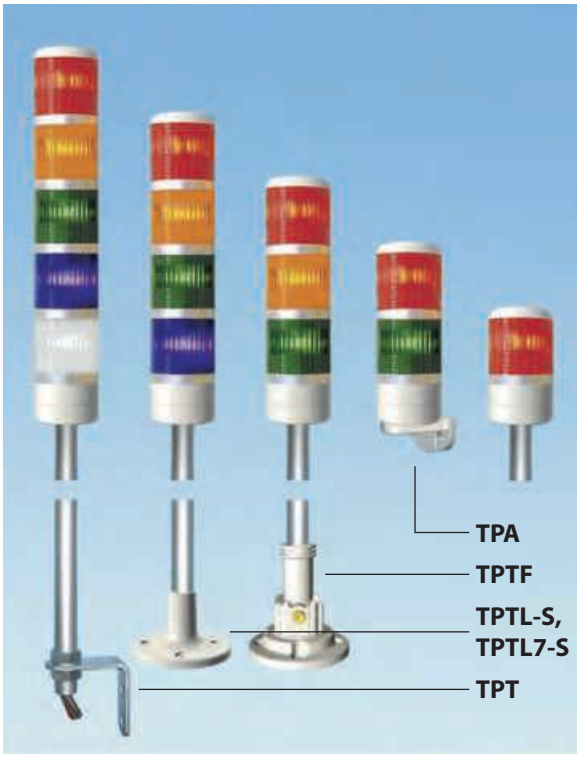
*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง

Ø70

TPTL7



TPWL7



Tower Light Ø70 mm Pole Mount-Continuous Light 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่อง Ø70 มม.

Type		Description	Price
TPTL7-1	หลอดธรรมดา	1 Section	3,020.-
TPTL7-2	หลอดธรรมดา	2 Section	3,785.-
TPTL7-3	หลอดธรรมดา	3 Section	4,545.-
TPTL7-4	หลอดธรรมดา	4 Section	5,280.-
TPTL7-5	หลอดธรรมดา	5 Section	6,050.-
TPTL7L-1 (LED)	หลอด LED	1 Section	3,445.-
TPTL7L-2 (LED)	หลอด LED	2 Section	4,635.-
TPTL7L-3 (LED)	หลอด LED	3 Section	5,815.-
TPTL7L-4 (LED)	หลอด LED	4 Section	6,975.-
TPTL7L-5 (LED)	หลอด LED	5 Section	8,170.-

Tower Light Ø70 mm Tray Mount-Continuous Light 12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่อง Ø70 มม.

Type		Description	Price
TPWL7-1	หลอดธรรมดา	1 Section	2,910.-
TPWL7-2	หลอดธรรมดา	2 Section	3,675.-
TPWL7-3	หลอดธรรมดา	3 Section	4,435.-
TPWL7-4	หลอดธรรมดา	4 Section	5,170.-
TPWL7-5	หลอดธรรมดา	5 Section	5,940.-
TPWL7L-1 (LED)	หลอด LED	1 Section	3,485.-
TPWL7L-2 (LED)	หลอด LED	2 Section	4,730.-
TPWL7L-3 (LED)	หลอด LED	3 Section	5,965.-
TPWL7L-4 (LED)	หลอด LED	4 Section	7,180.-
TPWL7L-5 (LED)	หลอด LED	5 Section	8,425.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT : CONTINUOUS LIGHT / FLASH LIGHT / AUDIBLE LIGHT

ทาวเวอร์ไลท์ : ชนิดไฟต่อเนื่อง / ชนิดกะพริบ / ชนิดพร้อมไซเรน

Ø70

TPTF7 / TPTS7 / TPTB7



TPWF7 / TPWS7 / TPWB7



● **Tower Light Ø 70 mm Pole Mount Continuous or Flashing Light**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือกะพริบ Ø70 มม.

Type			Description	Price
TPTF7-1		หลอดธรรมดา	1 Section	3,785.-
TPTF7-2		หลอดธรรมดา	2 Section	4,545.-
TPTF7-3		หลอดธรรมดา	3 Section	5,280.-
TPTF7-4		หลอดธรรมดา	4 Section	6,050.-
TPTF7-5		หลอดธรรมดา	5 Section	6,820.-
TPTF7L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	4,210.-
TPTF7L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	5,390.-
TPTF7L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	6,555.-
TPTF7L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	7,745.-
TPTF7L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	8,940.-

● **Tower Light Ø70 mm Tray Mount Continuous or Flashing Light**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือกะพริบ Ø70 มม.

Type			Description	Price
TPWF7-1		หลอดธรรมดา	1 Section	3,675.-
TPWF7-2		หลอดธรรมดา	2 Section	4,435.-
TPWF7-3		หลอดธรรมดา	3 Section	5,170.-
TPWF7-4		หลอดธรรมดา	4 Section	5,940.-
TPWF7-5		หลอดธรรมดา	5 Section	6,710.-
TPWF7L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	4,100.-
TPWF7L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	5,280.-
TPWF7L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	6,445.-
TPWF7L-4	(LED)	หลอด LED	4 Section	7,635.-
TPWF7L-5	(LED)	หลอด LED	5 Section	8,830.-

● **Tower Light Ø70 mm Pole Mount Continuous or Flashing Light with Alarm**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือกะพริบพร้อมไซเรน Ø70 มม.

Type			Description	Price
TPTS7-1		หลอดธรรมดา	1 Section	4,160.-
TPTS7-2		หลอดธรรมดา	2 Section	4,920.-
TPTS7-3		หลอดธรรมดา	3 Section	5,685.-
TPTS7-4		หลอดธรรมดา	4 Section	6,460.-
TPTS7-5		หลอดธรรมดา	5 Section	7,190.-
TPTS7L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	4,585.-
TPTS7L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	5,765.-
TPTS7L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	6,955.-
TPTS7L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	8,155.-
TPTS7L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	9,310.-

● **Tower Light Ø 70 mm Tray Mount Continuous or Flashing Light with Alarm**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องหรือกะพริบพร้อมไซเรน Ø70 มม.

Type			Description	Price
TPWS7-1		หลอดธรรมดา	1 Section	4,050.-
TPWS7-2		หลอดธรรมดา	2 Section	4,810.-
TPWS7-3		หลอดธรรมดา	3 Section	5,575.-
TPWS7-4		หลอดธรรมดา	4 Section	6,350.-
TPWS7-5		หลอดธรรมดา	5 Section	7,080.-
TPWS7L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	4,475.-
TPWS7L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	5,655.-
TPWS7L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	6,845.-
TPWS7L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	8,045.-
TPWS7L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	9,200.-

● **Tower Light Ø70 mm Pole Mount Continuous Light-Audible Alarm Light**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø70 มม.

Type			Description	Price
TPTB7-1		หลอดธรรมดา	1 Section	3,585.-
TPTB7-2		หลอดธรรมดา	2 Section	4,290.-
TPTB7-3		หลอดธรรมดา	3 Section	5,000.-
TPTB7-4		หลอดธรรมดา	4 Section	5,720.-
TPTB7-5		หลอดธรรมดา	5 Section	6,460.-
TPTB7L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	4,005.-
TPTB7L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	5,140.-
TPTB7L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	6,270.-
TPTB7L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	7,415.-
TPTB7L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	8,575.-

● **Tower Light Ø70 mm Tray Mount Continuous Light-**
12V, 24V, 110V, 220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø70 มม.

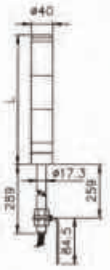
Type			Description	Price
TPWB7-1		หลอดธรรมดา	1 Section	3,475.-
TPWB7-2		หลอดธรรมดา	2 Section	4,180.-
TPWB7-3		หลอดธรรมดา	3 Section	4,890.-
TPWB7-4		หลอดธรรมดา	4 Section	5,610.-
TPWB7-5		หลอดธรรมดา	5 Section	6,350.-
TPWB7L-1	(LED) R,O,G,W,BL	หลอด LED	1 Section	3,895.-
TPWB7L-2	(LED) R,O,G,W,BL	หลอด LED	2 Section	5,030.-
TPWB7L-3	(LED) R,O,G,W,BL	หลอด LED	3 Section	6,160.-
TPWB7L-4	(LED) R,O,G,W,BL	หลอด LED	4 Section	7,305.-
TPWB7L-5	(LED) R,O,G,W,BL	หลอด LED	5 Section	8,465.-

หมายเหตุ รุ่น TPTF, TPWF, TPTS, TPWS ผู้ใช้สามารถเลือกต่อไฟชนิดติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

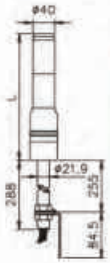
tend TOWER LIGHT
ทาวเวอร์ไลท์

DIMENSIONS



TPTL4 :

Section	L
1	114
2	176
3	238
4	300
5	362



TPTF4 / TPTS4
TPTB4 :

Section	L
1	114
2	176
3	238
4	300
5	362



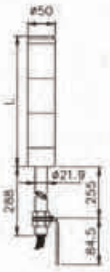
TPWL4 :

Section	L
1	122
2	184
3	246
4	308
5	370



TPWF4 / TPWS4
TPWB4 :

Section	L
1	181
2	243
3	305
4	367
5	429



TPTL5 :

Section	L
1	112
2	176
3	240
4	304
5	368



TPTF5 / TPTS4
TPTB5 :

Section	L
1	176
2	140
3	304
4	368
5	432



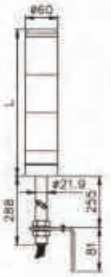
TPWL5 :

Section	L
1	122
2	186
3	250
4	314
5	378



TPWF5 / TPWS5
TPWB5 :

Section	L
1	186
2	250
3	314
4	378
5	442



TPTL6 :

Section	L
1	130
2	200
3	270
4	340
5	410



TPTF6 / TPTS6
TPTB6 :

Section	L
1	200
2	270
3	340
4	410
5	480



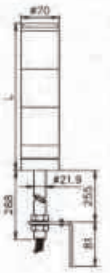
TPWL6 :

Section	L
1	136
2	206
3	276
4	346
5	416



TPWF6 / TPWS6
TPWB6 :

Section	L
1	206
2	276
3	346
4	416
5	486



TPTL7 :

Section	L
1	130
2	200
3	270
4	340
5	410



TPTF7 / TPTS7
TPTB7 :

Section	L
1	200
2	270
3	340
4	410
5	480



TPWL7 :

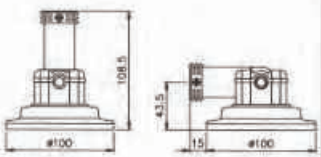
Section	L
1	136
2	206
3	276
4	346
5	416

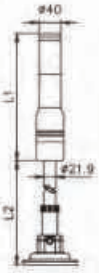


TPWF7 / TPWS7
TPWB7 :

Section	L
1	206
2	276
3	346
4	416
5	486

TPTL6-F





TPFF4 / TPFS4
TPFB4 :

Section	L
1	171
2	233
3	295
4	357
5	419

L2
Short151
Long 301



TPAL4 :

Section	L
1	114
2	176
3	238
4	300
5	362



TPAF4 / TPAS4
TPAB4 :

Section	L
1	171
2	233
3	295
4	357
5	419

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend TOWER LIGHT
ทาวเวอร์ไลท์



● TPTL5 :

Section	L
1	112
2	176
3	240
4	304
5	368

L2
Short151 Long 301



● TPFF5/TPFS5 TPFB5 :

Section	L
1	176
2	240
3	304
4	368
5	432

L2
Short151 Long 301



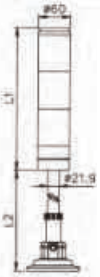
● TPAL5 :

Section	L
1	112
2	176
3	240
4	304
5	368



● TPAF5/TPAS5 TPAB5 :

Section	L
1	176
2	240
3	304
4	368
5	432



● TPAL6 :

Section	L
1	130
2	200
3	270
4	340
5	410

L2
Short151 Long 301



● TPAF6/TPAS6 TPAB6 :

Section	L
1	200
2	270
3	340
4	410
5	480

L2
Short151 Long 301



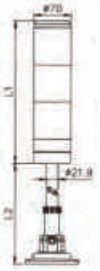
● TPAL6 :

Section	L
1	130
2	200
3	270
4	340
5	410



● TPAF6/TPAS6 TPAB6 :

Section	L
1	200
2	270
3	340
4	410
5	480



● TPFL7 :

Section	L
1	130
2	200
3	270
4	340
5	410

L2
Short151 Long 301



● TPAF7/TPAS7 TPAB7 :

Section	L
1	200
2	270
3	340
4	410
5	480



● TPAL7 :

Section	L
1	130
2	200
3	270
4	340
5	410



● TPAF7/TPAS7 TPAB7 :

Section	L
1	200
2	270
3	340
4	410
5	480

TOWER LIGHT (LED MODULE)
ทาวเวอร์ไลท์ (โมดูลประกอบ LED)

FEATURES

- Tend tower light can be installed in any machine as a status indicator by showing the color change of light and audible alarm. Tower light can be custom-made to meet different needs
- Flexible wiring design continuous or flashing Light intemittent or continous buzzing are achievable through wiring by end user
- Easy connection between modules enables customers to change module position and quantity based on requirement
- Audio alarm buzzes at 80dB/1m
- Pole Mount and Tray Mount with different type of brackets available

MODEL DESIGNATION

MTPT F 5 — L 2 3 ROG — S
1 2 3 4 5 6 7 8

Item	Signal	Description
1.Mounting medhod	MTPT	Pole mount
	MTPW	Tray mount
	MTPF	Tented type (Round tray)
	MTPFQ	Tented type (Square tray)
	MTPA	Side hitch type
	MTPS	Pole stand type
2.Functional	F	Flashing light
	S	Audible alarm with flashing light
3.Diameter	5	Ø 50mm
4.Bulb	L	LED
5.Voltage	2	220VAC - 110VAC
	7	24VAC/DC-12VAC/DC
6.No of modules	1~5	1~5
7.Color of module	R	Red
	O	Orange
	G	Green
	B	Blue
	W	White
8.Aluminum tube length	blank	Standard length TPT:288mm, TPF:43mm
	S	Special length TPT:138mm
	S	Special length TPT:193mm

LED MODULE MODEL DESIGNATION

MS — L5 R
1 2

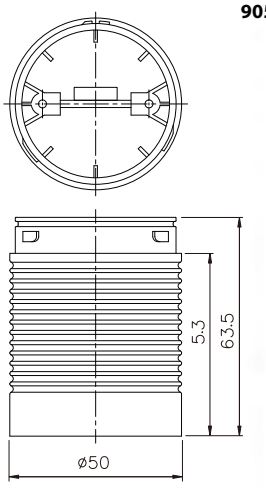
Item	Signal	Description
1.Lens diameter	L5	Ø 50mm
2.LED module	R	Red
	O	Orange
	G	Green
	B	Blue
	W	White

APPEARANCE AND DIMENSIONS

LED Module
MS-L5□□

905.-





LED MODULE AND BUZZER

Rated current (for reference only)

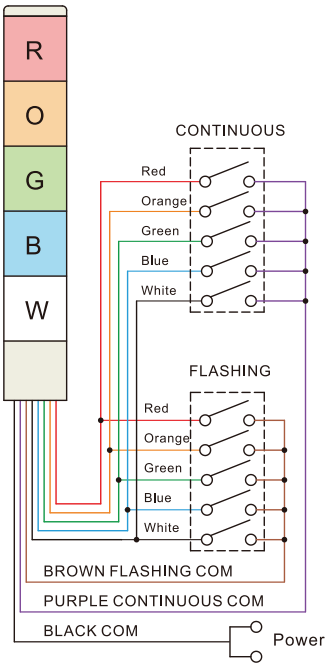
Voltage / Color	AC				DC	
	220V	110V	24V	12V	24V	12V
Red	9mA	19mA	181mA	169mA	96mA	90mA
Orange	9mA	19mA	179mA	169mA	95mA	86mA
Green	8mA	14mA	136mA	127mA	70mA	64mA
Blue	8mA	18mA	176mA	168mA	95mA	84mA
White	10mA	19mA	178mA	175mA	98mA	87mA
Buzzer	7mA	12mA	132mA	116mA	67mA	65mA

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

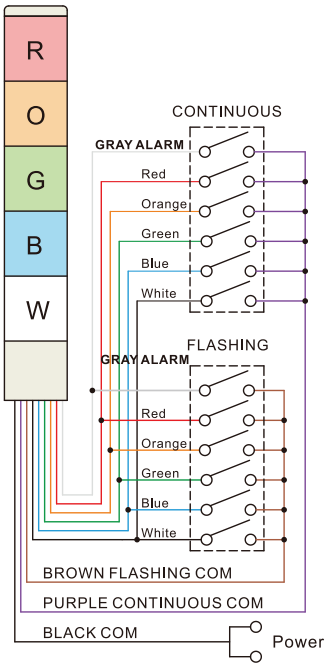
TOWER LIGHT (LED MODULE)
ทาวเวอร์ไลท์ (โมดูลประกอบ LED)

WIRING DIAGRAM (DC, Polarity labeled on power cables)

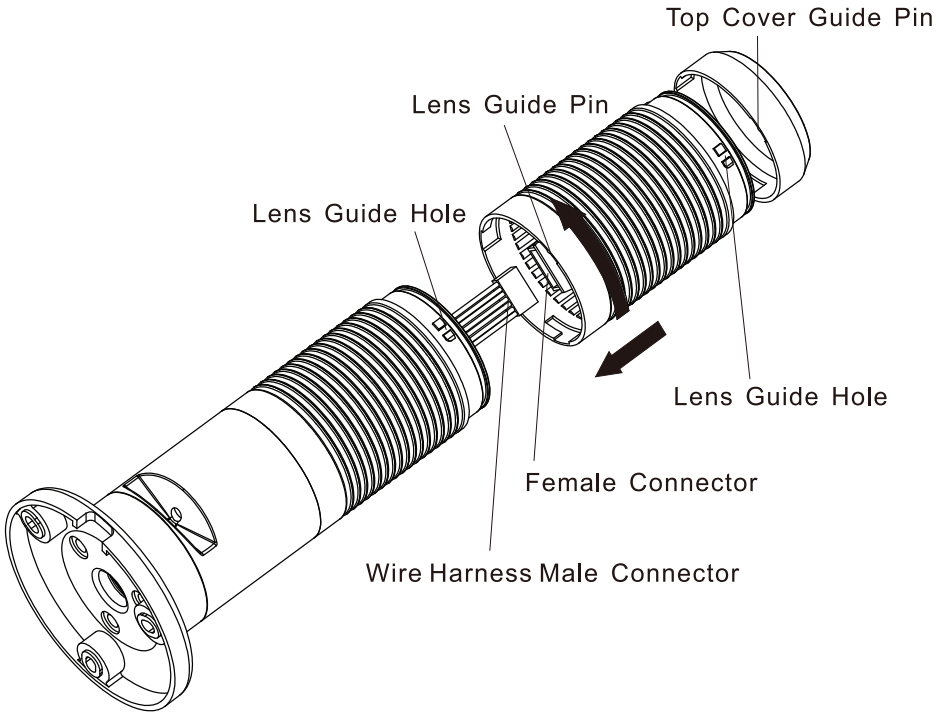
Continuous light



Audible alarm light



ASSEMBLY



TOWER LIGHT (LED MODULE) : FLASH LIGHT

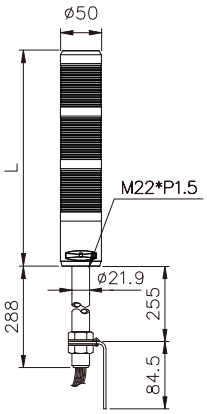
ทาวเวอร์ไลท์ (โมดูลประกอบ LED) : ชนิดกะพริบ

Ø50

APPEARANCE AND DIMENSIONS

MTPTF5

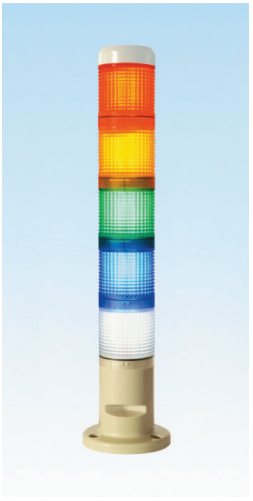


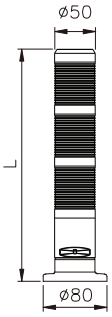


- MTPTF5:

Section	L
1	119
2	172
3	225
4	278
5	331

MTPWF5





- MTPWF5:

Section	L
1	141
2	194
3	247
4	300
5	353

MTPTF5
Tower light Ø50mm. Pole Mount-Flashing Light
12V, 24V, 110V, 220V
ชนิดไฟกะพริบหรือไฟต่อเนื่อง Ø50mm

Type		Description	Price
MTPTF5-1	หลอด LED	1 Section	2,550.-
MTPTF5-2	หลอด LED	2 Section	3,180.-
MTPTF5-3	หลอด LED	3 Section	3,720.-
MTPTF5-4	หลอด LED	4 Section	4,250.-
MTPTF5-5	หลอด LED	5 Section	4,775.-

MTPWF5
Tower light Ø50mm. Tray Mount-Flashing Light
12V, 24V, 110V, 220V
ชนิดไฟกะพริบหรือไฟต่อเนื่อง Ø50mm

Type		Description	Price
MTPWF5-1	หลอด LED	1 Section	2,025.-
MTPWF5-2	หลอด LED	2 Section	2,760.-
MTPWF5-3	หลอด LED	3 Section	3,290.-
MTPWF5-4	หลอด LED	4 Section	4,025.-
MTPWF5-5	หลอด LED	5 Section	4,775.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

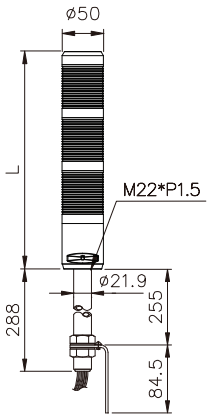
TOWER LIGHT (LED MODULE) : FLASH LIGHT

ทาวเวอร์ไลท์ (โมดูลประกอบ LED) : ชนิดกะพริบ

Ø50

MTPTS5



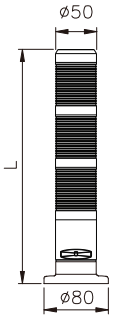


- MTPTS5 :

Section	L
1	119
2	172
3	225
4	278
5	331

MTPWS5





- MTPWS5 :

Section	L
1	141
2	194
3	247
4	300
5	353

MTPTS5
Tower light ø50mm. Pole Mount-Audible Alarm with Flashing Light 12V, 24V, 110V, 220V
ชนิดไฟกะพริบหรือไฟต่อเนื่องพร้อมเสียงออด Ø50mm

Type		Description	Price
MTPTS5-1	หลอด LED	1 Section	3,505.-
MTPTS5-2	หลอด LED	2 Section	4,060.-
MTPTS5-3	หลอด LED	3 Section	4,580.-
MTPTS5-4	หลอด LED	4 Section	5,085.-
MTPTS5-5	หลอด LED	5 Section	5,570.-

MTPWS5
Tower light Ø50mm. Tray Mount-Audible Alarm with Flashing Light 12V, 24V, 110V, 220V
ชนิดไฟกะพริบหรือไฟต่อเนื่องพร้อมเสียงออด Ø50mm

Type		Description	Price
MTPWS5-1	หลอด LED	1 Section	2,805.-
MTPWS5-2	หลอด LED	2 Section	3,370.-
MTPWS5-3	หลอด LED	3 Section	3,895.-
MTPWS5-4	หลอด LED	4 Section	4,425.-
MTPWS5-5	หลอด LED	5 Section	4,895.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

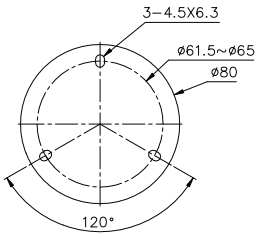
tend ACCESSORIES
อุปกรณ์เสริม

MOUNTING HOLE

- Tray mount
- Pole mount bracket (Optional)
- Pole mounting bracket

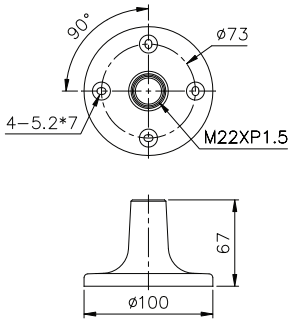
MTPW □5





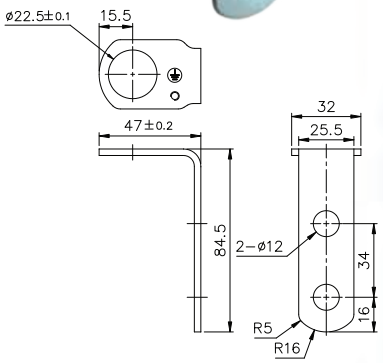
TPTL6-S 220.-
Use on MTPW □5





Use on MTPW5



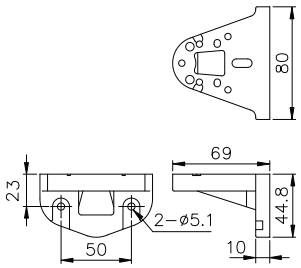


MOUNTING HOLE DIMENSION

- Pole mounting bracket (Optional)
- Foldable mounting bracket (Optional)

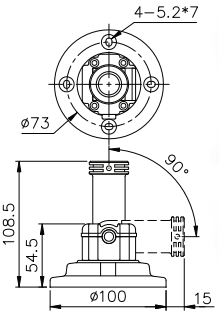
TPTL6-A 330.-
Used on MTPA □5





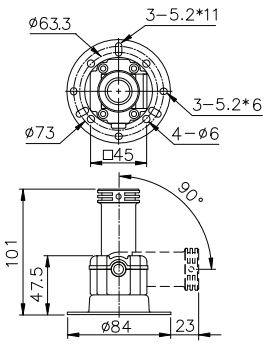
TPTL6-F (New patenred round plastic plate) 640.-
Used on MTPF □5





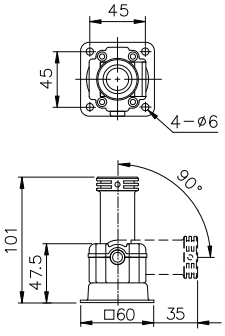
TPTL5-F 640.-
Used on MTP□5





TPTL5-FS (New patented) 640.-
Used on MTPF□5





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

TOWER LIGHT (SQUARE LEN)
ทาวเวอร์ไลท์ (ทรงเหลี่ยม)

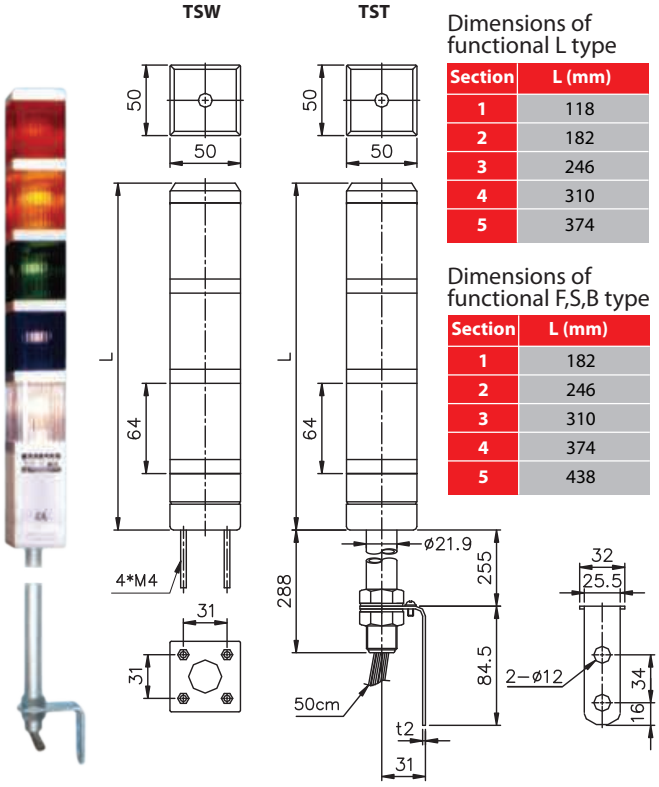
FEATURES

- Tend tower light can be installing in any machine as a status indicator by showing the color change of light and audible alarm.Tower light can be customer-made to meet differant needs.
- Internal spring suspention can avoid damage to the bulb due to machine's vibration.
- Flexible wiring design : Steady, flashing of alarm are achievable trough wiring by end user.
- Both bulb base for incandescent bulb & LED is BA15S.So it is easy to change bulb type.
- Audio alarm buzzers at 90 DB/30cm.

MODEL DESIGNATION

TST L 5 — L 2 3 ROG
(1) (2) (3) (4) (5) (6) (7)

Designation	Signal	Description
1.Mouting method	TST	Pole mount
	TSW	Tray mount
	TSF	Tented type (round tray)
	TSFQ	Tented type (Square tray)
	TSS	Pole stand type
2.Functional	L	Continuous light
	F	Continuous or falshing light
	S	Continuous of flashing light with audible alarm
	B	Audible alarm light
3.Diameter	5	50mm x 50mm
4.Bulb	Space	Incandescent
	L	LED
5.Voltage	1	110VAC
	2	220VAC
	7	24VAC/DC
	9	12VAC/DC
6.Section	1~5	1~5
7.Lens	R	Red
	O	Orange
	G	Green
	B	Blue
	W	White



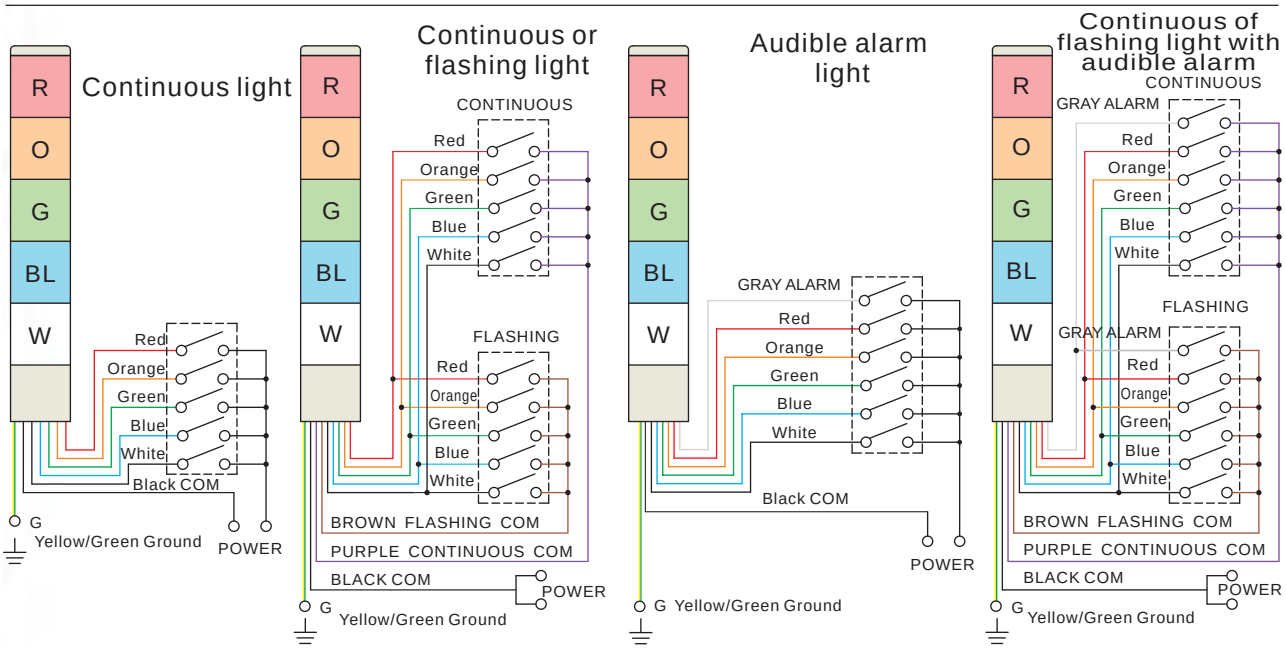
Dimensions of functional L type

Section	L (mm)
1	118
2	182
3	246
4	310
5	374

Dimensions of functional F,S,B type

Section	L (mm)
1	182
2	246
3	310
4	374
5	438

WIRING DIAGRAM



TOWER LIGHT (SQUARE LEN)
ทาวเวอร์ไลท์ (ทรงเหลี่ยม)

TSTL5



TSWL5



- **Tower light Ø50 mm pole mount-continuous light 12V,24V,110V,220V ชนิดไฟติดต่อเนื่อง Ø 50 มม.**

Type		Description
TSTL5-1	หลอดธรรมดา	1 Section
TSTL5-2	หลอดธรรมดา	2 Section
TSTL5-3	หลอดธรรมดา	3 Section
TSTL5-4	หลอดธรรมดา	4 Section
TSTL5-5	หลอดธรรมดา	5 Section
TSTL5-1 (LED)	หลอด LED	1 Section
TSTL5-2 (LED)	หลอด LED	2 Section
TSTL5-3 (LED)	หลอด LED	3 Section
TSTL5-4 (LED)	หลอด LED	4 Section
TSTL5-5 (LED)	หลอด LED	5 Section

- **Tower light Ø50 mm tray mount-continuous light 12V,24V,110V,220V ชนิดไฟติดต่อเนื่อง Ø 50 มม.**

Type		Description
TSWL5-1	หลอดธรรมดา	1 Section
TSWL5-2	หลอดธรรมดา	2 Section
TSWL5-3	หลอดธรรมดา	3 Section
TSWL5-4	หลอดธรรมดา	4 Section
TSWL5-5	หลอดธรรมดา	5 Section
TSWL5-1 (LED)	หลอด LED	1 Section
TSWL5-2 (LED)	หลอด LED	2 Section
TSWL5-3 (LED)	หลอด LED	3 Section
TSWL5-4 (LED)	หลอด LED	4 Section
TSWL5-5 (LED)	หลอด LED	5 Section

หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend TOWER LIGHT (SQUARE LEN)
ทาวเวอร์ไลท์ (ทรงเหลี่ยม)

TSTF5/ TSTS5/ TSTB5



TSWF5/ TSWS5/ TSWB5



● **Tower light Ø50 mm pole mount continuous or flashing light**
12V,24V,110V,220V ชนิดไฟติดต่อเนื่องหรือกะพริบ Ø50 มม.

Type			Description
TSTF5-1		หลอดธรรมดา	1 Section
TSTF5-2		หลอดธรรมดา	2 Section
TSTF5-3		หลอดธรรมดา	3 Section
TSTF5-4		หลอดธรรมดา	4 Section
TSTF5-5		หลอดธรรมดา	5 Section
TSTF5-1	(LED) R,O,G,W,BL	หลอด LED	1 Section
TSTF5-2	(LED) R,O,G,W,BL	หลอด LED	2 Section
TSTF5-3	(LED) R,O,G,W,BL	หลอด LED	3 Section
TSTF5-4	(LED) R,O,G,W,BL	หลอด LED	4 Section
TSTF5-5	(LED) R,O,G,W,BL	หลอด LED	5 Section

● **Tower light Ø50 mm pole mount continuous or flashing light with alarm**
12V,24V,110V,220V ชนิดไฟติดต่อเนื่องหรือกะพริบพร้อมไซเรน Ø50 มม.

Type			Description
TSTS5-1		หลอดธรรมดา	1 Section
TSTS5-2		หลอดธรรมดา	2 Section
TSTS5-3		หลอดธรรมดา	3 Section
TSTS5-4		หลอดธรรมดา	4 Section
TSTS5-5		หลอดธรรมดา	5 Section
TSTS5-1	(LED) R,O,G,W,BL	หลอด LED	1 Section
TSTS5-2	(LED) R,O,G,W,BL	หลอด LED	2 Section
TSTS5-3	(LED) R,O,G,W,BL	หลอด LED	3 Section
TSTS5-4	(LED) R,O,G,W,BL	หลอด LED	4 Section
TSTS5-5	(LED) R,O,G,W,BL	หลอด LED	5 Section

● **Tower light Ø50 mm pole mount continuous light-audible alarm light**
12V,24V,110V,220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø50 มม.

Type			Description
TSTB5-1		หลอดธรรมดา	1 Section
TSTB5-2		หลอดธรรมดา	2 Section
TSTB5-3		หลอดธรรมดา	3 Section
TSTB5-4		หลอดธรรมดา	4 Section
TSTB5-5		หลอดธรรมดา	5 Section
TSTB5-1	(LED) R,O,G,W,BL	หลอด LED	1 Section
TSTB5-2	(LED) R,O,G,W,BL	หลอด LED	2 Section
TSTB5-3	(LED) R,O,G,W,BL	หลอด LED	3 Section
TSTB5-4	(LED) R,O,G,W,BL	หลอด LED	4 Section
TSTB5-5	(LED) R,O,G,W,BL	หลอด LED	5 Section

● **Tower light Ø50 mm tray mount continuous or flashing light**
12V,24V,110V,220V ชนิดไฟติดต่อเนื่องหรือกะพริบ Ø50 มม.

Type			Description
TSWF5-1		หลอดธรรมดา	1 Section
TSWF5-2		หลอดธรรมดา	2 Section
TSWF5-3		หลอดธรรมดา	3 Section
TSWF5-4		หลอดธรรมดา	4 Section
TSWF5-5		หลอดธรรมดา	5 Section
TSWF5-1	(LED) R,O,G,W,BL	หลอด LED	1 Section
TSWF5-2	(LED) R,O,G,W,BL	หลอด LED	2 Section
TSWF5-3	(LED) R,O,G,W,BL	หลอด LED	3 Section
TSWF5-4	(LED) R,O,G,W,BL	หลอด LED	4 Section
TSWF5-5	(LED) R,O,G,W,BL	หลอด LED	5 Section

● **Tower light Ø50 mm tray mount continuous or flashing light with alarm**
12V,24V,110V,220V ชนิดไฟติดต่อเนื่องหรือกะพริบพร้อมไซเรน Ø50 มม.

Type			Description
TSWS5-1		หลอดธรรมดา	1 Section
TSWS5-2		หลอดธรรมดา	2 Section
TSWS5-3		หลอดธรรมดา	3 Section
TSWS5-4		หลอดธรรมดา	4 Section
TSWS5-5		หลอดธรรมดา	5 Section
TSWS5-1	(LED) R,O,G,W,BL	หลอด LED	1 Section
TSWS5-2	(LED) R,O,G,W,BL	หลอด LED	2 Section
TSWS5-3	(LED) R,O,G,W,BL	หลอด LED	3 Section
TSWS5-4	(LED) R,O,G,W,BL	หลอด LED	4 Section
TSWS5-5	(LED) R,O,G,W,BL	หลอด LED	5 Section

● **Tower light Ø50 mm pole mount continuous light-audible alarm light**
12V,24V,110V,220V ชนิดไฟติดต่อเนื่องพร้อมไซเรน Ø50 มม.

Type			Description
TSWB5-1		หลอดธรรมดา	1 Section
TSWB5-2		หลอดธรรมดา	2 Section
TSWB5-3		หลอดธรรมดา	3 Section
TSWB5-4		หลอดธรรมดา	4 Section
TSWB5-5		หลอดธรรมดา	5 Section
TSWB5-1	(LED) R,O,G,W,BL	หลอด LED	1 Section
TSWB5-2	(LED) R,O,G,W,BL	หลอด LED	2 Section
TSWB5-3	(LED) R,O,G,W,BL	หลอด LED	3 Section
TSWB5-4	(LED) R,O,G,W,BL	หลอด LED	4 Section
TSWB5-5	(LED) R,O,G,W,BL	หลอด LED	5 Section

หมายเหตุ : สอบถามเพิ่มเติมกรณีต้องการใช้หลอด LED

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

MULTICOLORED-LAYER TOWER LIGHT
ทาวเวอร์ไลท์รุ่น 1 ชั้น เปลี่ยนสีได้

FEATURES

- Multicolors in one layer to reduce total height, color : Red, Orange, Green and Blue.
- Revolving speed : 180 RPM, flashing frequency : 60 times per minuite.
- Intermittent buzz : Frequency with series connected with revolving wire : 180 RPM
  Frequency with series connected with flashing wire : 60 times per minute, volume : 80db/1M or more

NAME PLATE DESIGNATION

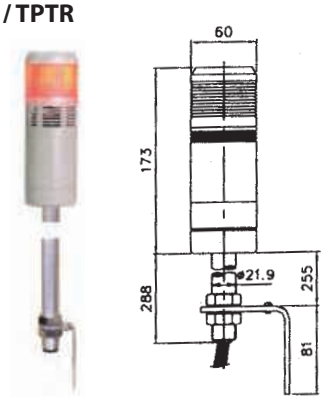
TPT	ML	6	-	2	3	ROG
1	2	3		4	5	6

Item	Signal	Description
1.Mounting method	TPT	Pole Mount
	TPW	Tray Mount
2.Functional	ML	Continuous Light
	MF	Continuous or Flashing Light
	MB	Audible Alarm Light
	MS	Continuous or Flashing Light With Audible Alarm
	RF	Rotary Light, Continuous And Flashing Light
	RS	Rotary Light, Continuous And Flashing Light
		With Audible Alarm
3.Size	5	Ø50 mm
	6	Ø60 mm
	7	Ø70 mm

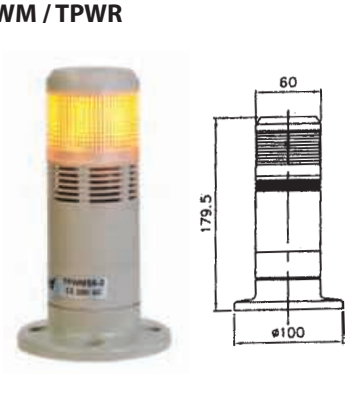
Item	Signal	Description
4.Voltage	1	110 V AC
	2	220 V AC
	7	24 V AC/ DC
	9	12 V AC/ DC
5.Section	2-4	2-4 Light
6.Color	R	Red
	O	Orange
	G	Green LED
	BL	Blue

DIMENSIONS AND MOUNTING HOLE

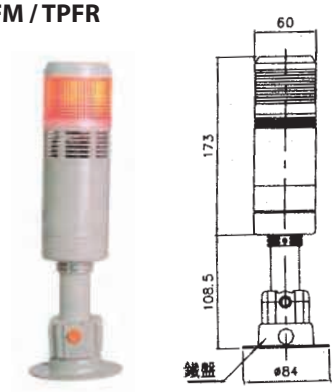
TPTM / TPTR



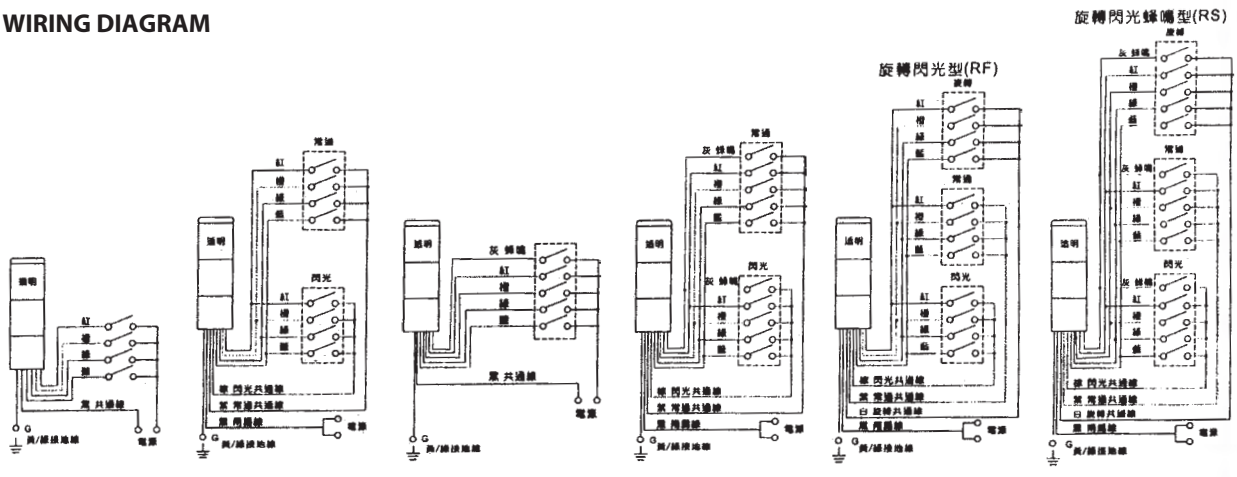
TPWM / TPWR



TPFM / TPFR



WIRING DIAGRAM



Continuous light | Continuous or flashing light | Audible alarm light | Continuous of flashing light with Audible alarm light

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MULTICOLORED-LAYER TOWER LIGHT
ทาวเวอร์ไลท์รุ่น 1 ชั้น เปลี่ยนสีได้

One section tower light-LED : Continuous light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดก้านแป้นแบบไฟติดต่อเนื่อง ใช้หลอด LED



Code No.	Color	Voltage	Price
TPTML5 2	2	12, 24, 110, 220 V	-
TPTML5 3	3	12, 24, 110, 220 V	-
TPTML5 4	4	12, 24, 110, 220 V	-
TPTML6 2	2	12, 24, 110, 220 V	3,685.-
TPTML6 3	3	12, 24, 110, 220 V	4,870.-
TPTML6 4	4	12, 24, 110, 220 V	6,175.-
TPTML7 2	2	12, 24, 110, 220 V	-
TPTML7 3	3	12, 24, 110, 220 V	-
TPTML7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Continuous light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาแป้นแบบไฟติดต่อเนื่อง ใช้หลอด LED



Code No.	Color	Voltage	Price
TPWML5 2	2	12, 24, 110, 220 V	-
TPWML5 3	3	12, 24, 110, 220 V	-
TPWML5 4	4	12, 24, 110, 220 V	-
TPWML6 2	2	12, 24, 110, 220 V	3,575.-
TPWML6 3	3	12, 24, 110, 220 V	4,730.-
TPWML6 4	4	12, 24, 110, 220 V	6,035.-
TPWML7 2	2	12, 24, 110, 220 V	-
TPWML7 3	3	12, 24, 110, 220 V	-
TPWML7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Continuous or flashing light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดก้านแป้นแบบไฟติดต่อเนื่องหรือไฟกะพริบ ใช้หลอด LED



Code No.	Color	Voltage	Price
TPTMF5 2	2	12, 24, 110, 220 V	-
TPTMF5 3	3	12, 24, 110, 220 V	-
TPTMF5 4	4	12, 24, 110, 220 V	-
TPTMF6 2	2	12, 24, 110, 220 V	4,560.-
TPTMF6 3	3	12, 24, 110, 220 V	5,550.-
TPTMF6 4	4	12, 24, 110, 220 V	6,855.-
TPTMF7 2	2	12, 24, 110, 220 V	-
TPTMF7 3	3	12, 24, 110, 220 V	-
TPTMF7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Continuous or flashing light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาแป้นแบบไฟติดต่อเนื่องหรือไฟกะพริบ ใช้หลอด LED



Code No.	Color	Voltage	Price
TPWMF5 2	2	12, 24, 110, 220 V	-
TPWMF5 3	3	12, 24, 110, 220 V	-
TPWMF5 4	4	12, 24, 110, 220 V	-
TPWMF6 2	2	12, 24, 110, 220 V	4,235.-
TPWMF6 3	3	12, 24, 110, 220 V	5,410.-
TPWMF6 4	4	12, 24, 110, 220 V	6,725.-
TPWMF7 2	2	12, 24, 110, 220 V	-
TPWMF7 3	3	12, 24, 110, 220 V	-
TPWMF7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Audible alarm light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดก้านแป้นแบบไฟติดต่อเนื่องพร้อมเสียง สัญญาณออดใช้หลอด LED



Code No.	Color	Voltage	Price
TPTMB5 2	2	12, 24, 110, 220 V	-
TPTMB5 3	3	12, 24, 110, 220 V	-
TPTMB5 4	4	12, 24, 110, 220 V	-
TPTMB6 2	2	12, 24, 110, 220 V	4,070.-
TPTMB6 3	3	12, 24, 110, 220 V	5,205.-
TPTMB6 4	4	12, 24, 110, 220 V	6,520.-
TPTMB7 2	2	12, 24, 110, 220 V	-
TPTMB7 3	3	12, 24, 110, 220 V	-
TPTMB7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Audible alarm light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาแป้นแบบไฟติดต่อเนื่องพร้อมเสียง สัญญาณออดใช้หลอด LED



Code No.	Color	Voltage	Price
TPWMB5 2	2	12, 24, 110, 220 V	-
TPWMB5 3	3	12, 24, 110, 220 V	-
TPWMB5 4	4	12, 24, 110, 220 V	-
TPWMB6 2	2	12, 24, 110, 220 V	3,890.-
TPWMB6 3	3	12, 24, 110, 220 V	5,075.-
TPWMB6 4	4	12, 24, 110, 220 V	6,380.-
TPWMB7 2	2	12, 24, 110, 220 V	-
TPWMB7 3	3	12, 24, 110, 220 V	-
TPWMB7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend MULTICOLORED-LAYER TOWER LIGHT

ทาวเวอร์ไลท์รุ่น 1 ชั้น เปลี่ยนสีได้

One section tower light-LED :
Continuous or flashsing light with audible alarm
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาก้านแบบไฟติดต่อเนื่องหรือไฟกะพริบ พร้อมเสียงสัญญาณ ใช้หลอด LED



Code No.	Color	Voltage	Price
TPTMS5 2	2	12, 24, 110, 220 V	-
TPTMS5 3	3	12, 24, 110, 220 V	-
TPTMS5 4	4	12, 24, 110, 220 V	-
TPTMS6 2	2	12, 24, 110, 220 V	4,710.-
TPTMS6 3	3	12, 24, 110, 220 V	5,875.-
TPTMS6 4	4	12, 24, 110, 220 V	7,190.-
TPTMS7 2	2	12, 24, 110, 220 V	-
TPTMS7 3	3	12, 24, 110, 220 V	-
TPTMS7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED :
Continuous or flashsing light with audible alarm
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาแป้นแบบไฟติดต่อเนื่องหรือไฟกะพริบ พร้อมเสียงสัญญาณ ใช้หลอด LED



Code No.	Color	Voltage	Price
TPWMS5 2	2	12, 24, 110, 220 V	-
TPWMS5 3	3	12, 24, 110, 220 V	-
TPWMS5 4	4	12, 24, 110, 220 V	-
TPWMS6 2	2	12, 24, 110, 220 V	4,580.-
TPWMS6 3	3	12, 24, 110, 220 V	5,745.-
TPWMS6 4	4	12, 24, 110, 220 V	7,055.-
TPWMS7 2	2	12, 24, 110, 220 V	-
TPWMS7 3	3	12, 24, 110, 220 V	-
TPWMS7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED :
Rotary light continuous or flashing light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาก้านชนิดไฟหมุนแบบไฟติดต่อเนื่องหรือไฟกะพริบ ใช้หลอด LED



Code No.	Color	Voltage	Price
TPTRF5 2	2	12, 24, 110, 220 V	-
TPTRF5 3	3	12, 24, 110, 220 V	-
TPTRF5 4	4	12, 24, 110, 220 V	-
TPTRF6 2	2	12, 24, 110, 220 V	4,710.-
TPTRF6 3	3	12, 24, 110, 220 V	5,875.-
TPTRF6 4	4	12, 24, 110, 220 V	7,190.-
TPTRF7 2	2	12, 24, 110, 220 V	-
TPTRF7 3	3	12, 24, 110, 220 V	-
TPTRF7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED :
Rotary light continuous flashing light
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาแป้นชนิดไฟหมุนแบบไฟติดต่อเนื่องหรือไฟกะพริบ ใช้หลอด LED



Code No.	Color	Voltage	Price
TPWRF5 2	2	12, 24, 110, 220 V	-
TPWRF5 3	3	12, 24, 110, 220 V	-
TPWRF5 4	4	12, 24, 110, 220 V	-
TPWRF6 2	2	12, 24, 110, 220 V	4,580.-
TPWRF6 3	3	12, 24, 110, 220 V	5,745.-
TPWRF6 4	4	12, 24, 110, 220 V	7,055.-
TPWRF7 2	2	12, 24, 110, 220 V	-
TPWRF7 3	3	12, 24, 110, 220 V	-
TPWRF7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Rotary light, continuous or flashing light with audible alarm
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาก้านชนิดไฟหมุนแบบไฟติดต่อเนื่องหรือไฟกะพริบพร้อมเสียงสัญญาณออด ใช้หลอด LED



Code No.	Color	Voltage	Price
TPTRS5 2	2	12, 24, 110, 220 V	-
TPTRS5 3	3	12, 24, 110, 220 V	-
TPTRS5 4	4	12, 24, 110, 220 V	-
TPTRS6 2	2	12, 24, 110, 220 V	5,045.-
TPTRS6 3	3	12, 24, 110, 220 V	6,210.-
TPTRS6 4	4	12, 24, 110, 220 V	7,525.-
TPTRS7 2	2	12, 24, 110, 220 V	-
TPTRS7 3	3	12, 24, 110, 220 V	-
TPTRS7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

One section tower light-LED : Rotary light, continuous or flashing light with audible alarm
ทาวเวอร์ไลท์ รุ่น 1 ชั้นสามารถเปลี่ยนสีได้
ไฟสัญญาณชนิดขาแป้นชนิดไฟหมุนแบบไฟติดต่อเนื่องหรือไฟกะพริบพร้อมเสียงสัญญาณออด ใช้หลอด LED



Code No.	Color	Voltage	Price
TPWRS5 2	2	12, 24, 110, 220 V	-
TPWRS5 3	3	12, 24, 110, 220 V	-
TPWRS5 4	4	12, 24, 110, 220 V	-
TPWRS6 2	2	12, 24, 110, 220 V	4,910.-
TPWRS6 3	3	12, 24, 110, 220 V	6,075.-
TPWRS6 4	4	12, 24, 110, 220 V	7,395.-
TPWRS7 2	2	12, 24, 110, 220 V	-
TPWRS7 3	3	12, 24, 110, 220 V	-
TPWRS7 4	4	12, 24, 110, 220 V	-

Note : ผู้ใช้สามารถเลือกใช้ไฟติดต่อเนื่องหรือไฟกะพริบได้ตามต้องการ

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend TOWER LIGHT
ทาวเวอร์ไลท์
Ø120

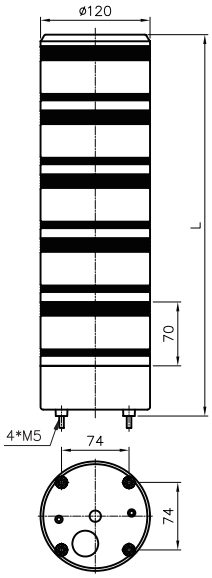
FEATURES
- Tend tower light can be installed in any machine as a statusindicator by showing the color change of light and audible alarm. Tower light can be custom-made to meet different needs.
- Flexible wiring design.LED flashing or continuous and alarm intermittent or continuous can be determined by end user though wiring.
- Audio alarm buzzes at 90DB/30cm.

MODEL DESIGNATION

TPW	L	12	—	L	2	3	ROG
1	2	3		4	5	6	7

Designation	Signal	Description
1.Mounting method	TPW	Tray mount
2.Function	L	Continuous light
	F	Continuous flashing light
	S	Continuous flashing light with audible alarm
	B	Audible alarm light
3.Diameter	12	Ø120 mm
4.Bulb	L	LED
5.Voltage	1	110VAC
	2	220VAC
	7	24VAC/DC
	9	12VAC/DC
6.Section	1~5	1~5
7.Lens color	R	Red
	O	Orange
	G	Green
	B	Blue
	W	White



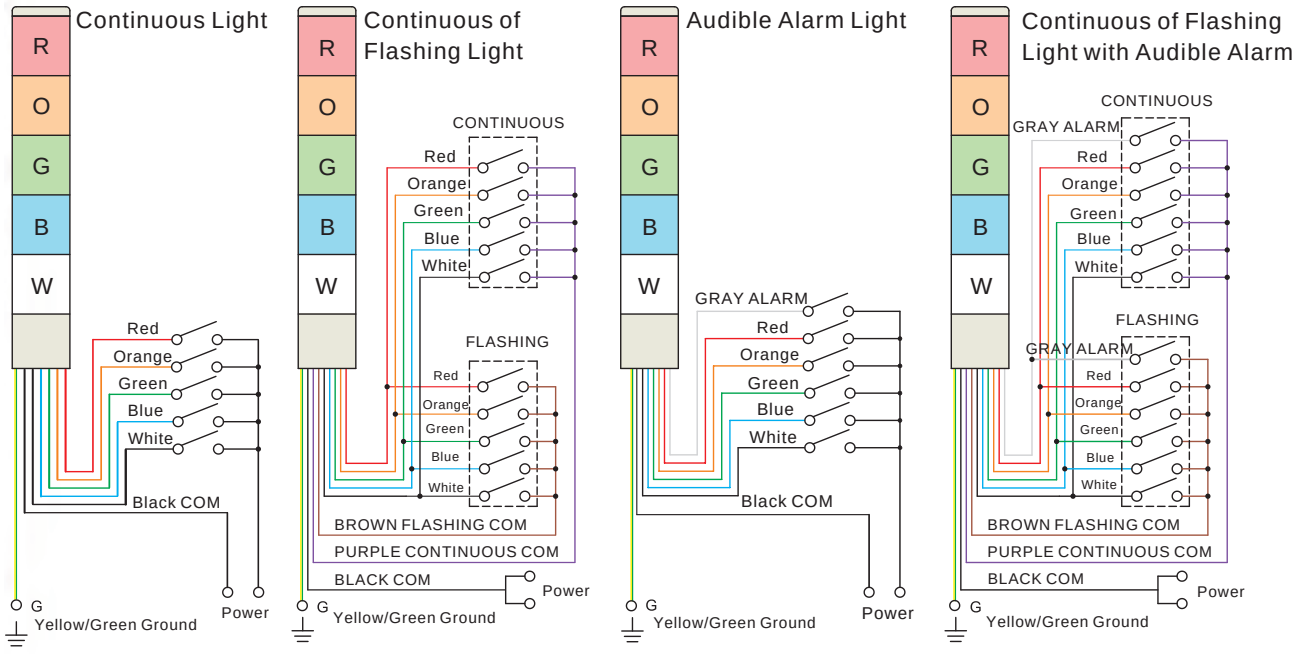


● **Continuous light :**

Section	L
1	118
2	182
3	246
4	310
5	374

WIRING DIAGRAM (DC,Polarity labeled on power cables)

* สอบถามราคากับพนักงานขาย



XENON BEACON
ซีนอน บีคอน

FEATURES
- Surface Mount Type. Suitable for Indoor and Outdoor
- Rated IP65. Application Ambient Temperature -20~+55° (Ice Free)
- Available in five colors
- Beacon body in black



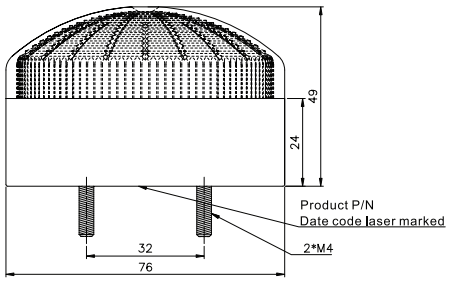
DESIGNATION

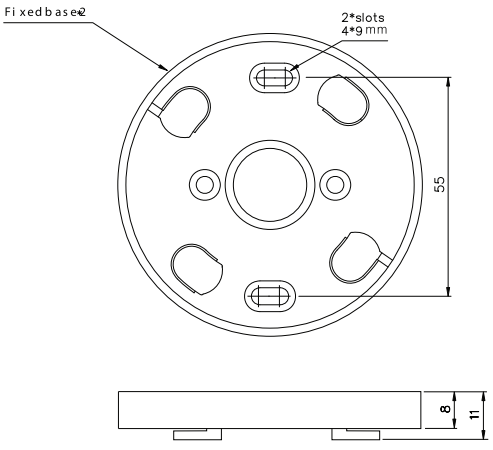
TSL – 24 DA – A
1 2 3 4

Designation	Code	Description
1	TSL TLL	Xenon tube LED lamp
2	24	Rated voltage 12~24VAC/DC
	220	Rated voltage 110~220VAC
3	A	AC only
	DA	DC/AC
4	A	Color : Amber
	B	Color : Blue
	C	Color : Clear
	G	Color : Green
	R	Color : Red

24V DC **1,485.-**
220V AC **1,485.-**

DIMENSIONS AND MOUNTING HOLES





*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend REVOLVING AND FLASHING WARNING LIGHT

ไฟหมุน / ไฟกะพริบ

FEATURE

- Revolving or flashing types color : Red, Orange, Green, Blue and Pink.
- Revolvin speed : 160 RPM, flash frequency : 150 times per minute.
- Intermittent buzz, Synchronizing frequency with flash, approx 150 times per minute volume : 80 db/1m or more.

MODEL DESIGNATION

TWF B - 10 L 2 R

1 2 3 4 5 6

Designation	Signal	Description
1.Type	TWR	Rotary (Transparent Lens)
	TWK	Rotary (Diamond Lens)
	TWF	Flashing (LED)
	TWL	Rotary (LED)
2.Buzzer	Space	Screw terminal (without Buzzer)
	B	Screw terminal (with Buzzer)
	W	Lead (without Buzzer)
	S	Lead (with Buzzer)
3.Size	08	Ø 80 mm
	10	Ø 100 mm
	12	Ø 120 mm
	16	Ø 160 mm
	18	Ø 180 mm
4.Bulb	Space	Incandescent Bulb
	L	LED
5.Voltage	1	110 VAC
	2	220 VAC
	7	24 VAC/DC
	9	12 VAC/DC
6.Color of lens	R	Red
	O	Orange
	G	Green
	BL	Blue
	P	Pink

Note : 1.TWR/TWK incandescent bulb only
2.TWF incandescent bulb or LED
3.TWL LED only

LED

Size	TWF							
		12V		24V		110V		220V
Ø80 mm	L4	12V 0.08A	L4	24V 0.04A	L4	110V 0.02A	L4	220V 0.02A
Ø100 mm Ø120 mm	L6	24V 0.1A	L6	24V 0.05A	L6	110V 0.02A	L6	220V 0.02A

Size	TWR/TWK								TWF							
		12V		24V		110V		220V		12V		24V		110V		220V
Ø80 mm	I3	12 V 8 W	I3	24 V 8 W	I4	110 V 5W	I4	220 V 5 W	I6	12 V 10 W	I6	24 V 10 W	I6	110 V 10 W	I6	220 V 10 W
Ø100 mm	I3	12 V 8 W	I3	24 V 8 W	I2	12 V 5 W	I2	12 V 5 W	I6	12 V 10 W	I6	24 V 10 W	I6	110 V 10 W	I6	220 V 10 W
Ø120 mm	I3	12 V 8 W	I3	24 V 8 W	I3	12 V 8 W	I3	12 V 8 W	I6	12 V 10 W	I6	24 V 10 W	I6	110 V 10 W	I6	220 V 10 W
Ø160 mm Ø180 mm	I7	12 V 35 W	I7	24 V 35 W	I7	12 V 35 W	I7	12 V 35 W	I7	12 V 35 W	I7	24 V 35 W	I7	110 V 35 W	I7	220 V 35 W

LED LAMP FOR WARNING LIGHT

MODEL DESIGNATION

S15 - L4 2 R

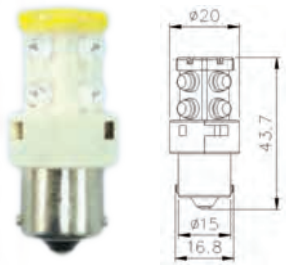
1 2 3 4

Designation	Signal	Description
1.Base type	S15	BA15S base
2.Lamp type	L4	LED X 8
	L6	LED X 15
3.Voltage	1	110 VAC/DC
	2	220 VAC/DC
	7	24 VAC/DC
	9	12 VAC/DC
4.Color	R	Red LED
	O	Orange LED
	G	Green LED
	BL	Blue LED

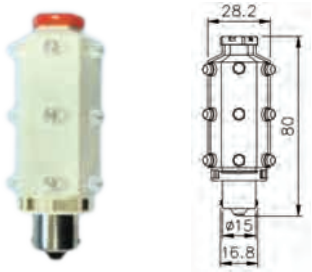
S15-L4 for TWL-08 + TWF-08
S15-L6 for TWL-10, TWF-12 + TWL-10, TWL-12

LAMP DIMENSION

S15-L4 **485.-**



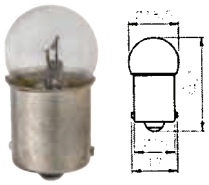
S15-L6 **540.-**



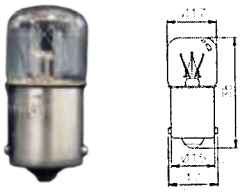
tend REVOLVING AND FLASHING WARNING LIGHT
ไฟหมุน / ไฟกะพริบ

LAMP DIMENSION

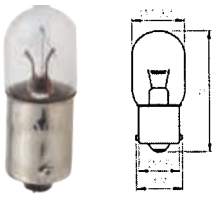
S15-I2 70.-
S15-I3 70.-



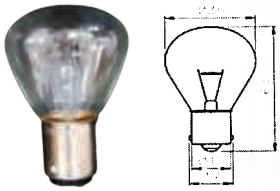
S15-I4 70.-



S15-I6 70.-



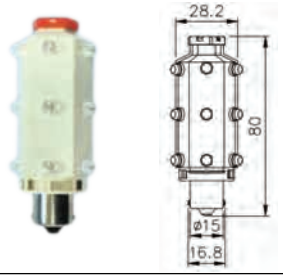
S15-I7 70.-



S15-L4(R,O) 485.-
S15-L4(G,W,BL) 485.-



S15-L6(R,O) 540.-
S15-L6(G,W,BL) 540.-



TWR **TWS** **TWK**

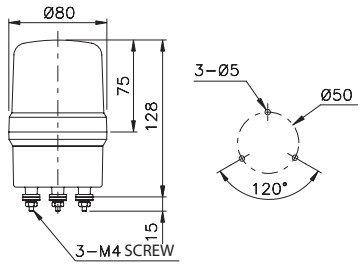


ฝาครอบเรียบ ฝาครอบ ฝาครอบลายเพรช

DIMENSION AND MOUNTING HOLE

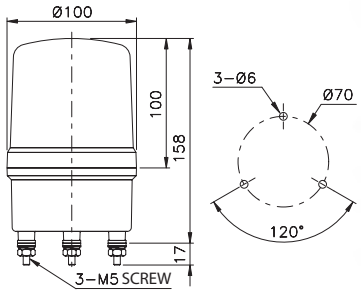
TWRW-08





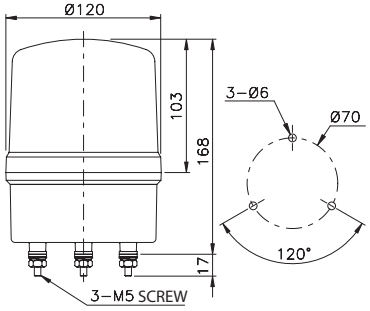
TWRW-10





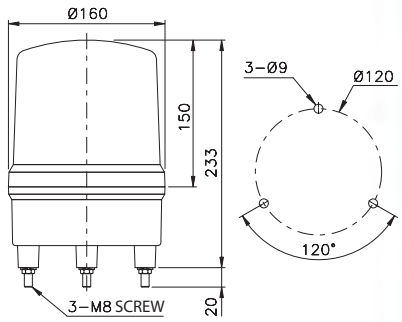
TWRW-12





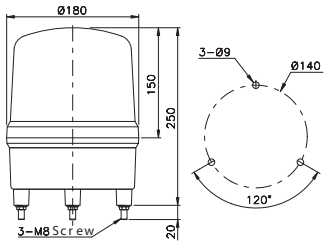
TWRW-16



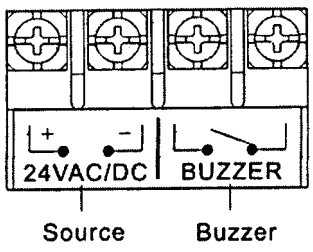


TWRW-18





WIRING DIAGRAM



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REVOLVING AND FLASHING WARNING LIGHT
ไฟหมุน / ไฟกะพริบ

Code	Description	Voltage	Price
TWR-08	ไฟหมุนฝาครอบเรียบ ขนาด 80 มม.	110V, 220V, 12V, 24V	675.-
TWR-10	ไฟหมุนฝาครอบเรียบ ขนาด 100 มม.	110V, 220V, 12V, 24V	765.-
TWR-12	ไฟหมุนฝาครอบเรียบ ขนาด 120 มม.	110V, 220V, 12V, 24V	970.-
TWR-16	ไฟหมุนฝาครอบเรียบ ขนาด 160 มม.	110V, 220V, 12V, 24V	1,875.-
TWR-18	ไฟหมุนฝาครอบเรียบ ขนาด 180 มม.	110V, 220V, 12V, 24V	2,445.-
TWK-10	ไฟหมุนฝาครอบลายเพรช ขนาด 100 มม.	110V, 220V, 12V, 24V	765.-
TWS-08	ไฟหมุนฝาครอบลายเส้น ขนาด 80 มม.	110V, 220V, 12V, 24V	675.-
TWS-10	ไฟหมุนฝาครอบลายเส้น ขนาด 100 มม.	110V, 220V, 12V, 24V	765.-
TWS-12	ไฟหมุนฝาครอบลายเส้น ขนาด 120 มม.	110V, 220V, 12V, 24V	970.-
TWS-16	ไฟหมุนฝาครอบลายเส้น ขนาด 160 มม.	110V, 220V, 12V, 24V	1,720.-
TWS-18	ไฟหมุนฝาครอบลายเส้น ขนาด 180 มม.	110V, 220V, 12V, 24V	2,445.-
TWLW-08L	ไฟหมุนฝาครอบลายเส้น ขนาด 80 มม. (LED)	110V, 220V, 12V, 24V	1,095.-
TWLW-10L	ไฟหมุนฝาครอบลายเส้น ขนาด 100 มม. (LED)	110V, 220V, 12V, 24V	1,245.-
TWLW-12L	ไฟหมุนฝาครอบลายเส้น ขนาด 120 มม. (LED)	110V, 220V, 12V, 24V	1,450.-
TWLW-16L	ไฟหมุนฝาครอบลายเส้น ขนาด 160 มม. (LED)	110V, 220V, 12V, 24V	2,195.-
TWLW-18L	ไฟหมุนฝาครอบลายเส้น ขนาด 180 มม. (LED)	110V, 220V, 12V, 24V	2,925.-
TWRB-08	ไฟหมุนฝาครอบเรียบ พร้อมสัญญาณออด ขนาด 80 มม. - Terminal	110V, 220V, 12V, 24V	1,505.-
TWRB-10	ไฟหมุนฝาครอบเรียบ พร้อมสัญญาณออด ขนาด 100 มม. - Terminal	110V, 220V, 12V, 24V	1,665.-
TWRB-12	ไฟหมุนฝาครอบเรียบ พร้อมสัญญาณออด ขนาด 120 มม. - Terminal	110V, 220V, 12V, 24V	2,045.-
TWRB-16	ไฟหมุนฝาครอบเรียบ พร้อมสัญญาณออด ขนาด 160 มม. - Terminal	110V, 220V, 12V, 24V	3,060.-
TWRB-18	ไฟหมุนฝาครอบเรียบ พร้อมสัญญาณออด ขนาด 180 มม. - Terminal	110V, 220V, 12V, 24V	4,150.-
TWLB-08L	ไฟหมุนฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 80 มม. (LED) - Terminal	110V, 220V, 12V, 24V	1,925.-
TWLB-10L	ไฟหมุนฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 100 มม. (LED) - Terminal	110V, 220V, 12V, 24V	2,140.-
TWLB-12L	ไฟหมุนฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 120 มม. (LED) - Terminal	110V, 220V, 12V, 24V	2,520.-
TWLB-16L	ไฟหมุนฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 160 มม. (LED) - Terminal	110V, 220V, 12V, 24V	3,540.-
TWLB-18L	ไฟหมุนฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 180 มม. (LED) - Terminal	110V, 220V, 12V, 24V	4,630.-
TWF-08L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น ขนาด 80 มม. (LED)	110V, 220V, 12V, 24V	1,095.-
TWF-10L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น ขนาด 100 มม. (LED)	110V, 220V, 12V, 24V	1,245.-
TWF-12L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น ขนาด 120 มม. (LED)	110V, 220V, 12V, 24V	1,450.-
TWF-16L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น ขนาด 160 มม. (LED)	110V, 220V, 12V, 24V	2,190.-
TWF-18L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น ขนาด 180 มม. (LED)	110V, 220V, 12V, 24V	2,910.-
TWFB-08L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 80 มม. (LED) - Terminal	110V, 220V, 12V, 24V	1,945.-
TWFB-10L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 100 มม. (LED) - Terminal	110V, 220V, 12V, 24V	2,140.-
TWFB-12L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 120 มม. (LED) - Terminal	110V, 220V, 12V, 24V	2,515.-
TWFB-16L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 160 มม. (LED) - Terminal	110V, 220V, 12V, 24V	3,520.-
TWFB-18L	ไฟหมุนชนิดกะพริบฝาครอบลายเส้น พร้อมเสียงสัญญาณออด ขนาด 180 มม. (LED) - Terminal	110V, 220V, 12V, 24V	4,480.-

*TWRS, TWLS, TWFS ไฟหมุนพร้อมเสียงออด-มีสายไฟ (สอบถามเพิ่มเติมกับพนักงานขาย)

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

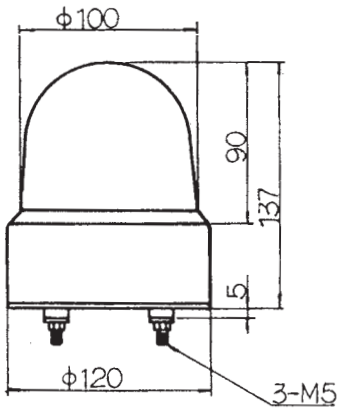
tend WARNING LIGHT
สัญญาณไฟหมุน

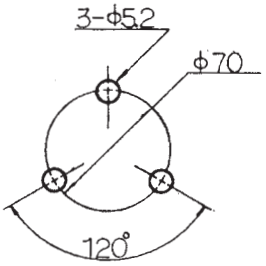
■ TRM-220

Model RM is small model with paraboolic reflector Acrylic done is availible in red orang, blue, green ideal for commercial use and industrial use.

Model	Voltage	Current	Plashes per minute	Bulb	Weight
TRM 120	DC 12V	0.7 A	150 R PM	12V8W	0.6 kg.
TRM 240	DC 24V	0.07 A		24V 10W	0.75 kg.
TRM 220	DC 220V	0.04 A		220V 5W	0.75 kg.







1,120.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

BUZZER / BELL
ออด / กระดิ่ง
TBY TBN 4BL

FEATURES
- Small size
- Beautiful style
- High volume

MODEL DESIGNATION
TBN - 220 □
1 2 3

SPECIFICATIONS
- Dielectric strength :
  AC 1500V for duration of one minute
- Insulation resistance : Over 100 m DC500V
- Service life : Over than 30 minutes (Continuous)
- Volume (D,B)
  TBN-220, TBY-220 series : Over than 85 D.B.
  TBY-302 Series : Over than 75 D.B.
  4BL-220 Series : Over than 95 D.B.

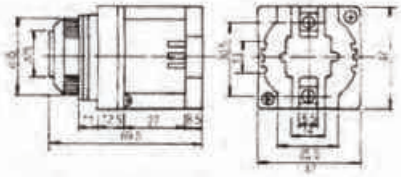
Designation	Signal	Description
1.Type	TBN	Flush Mounting
	TBY	Surface Mounting
	4BL	4" Bell
2.Voltage	110	110 V
	220	220 V
	24	24 V
	12	12 V
	301	110 V 30mm
	302	220 V 30mm
	312	12 V
	324	24 V
3.Current	(NONE)	AC
	D	DC

DIMENSIONS

Type	Description	Price
TBY-302	220V	400.-
TBY-301	110V	
TBY-324D	24V	430.-
TBY-312D	12V	430.-

30 mm

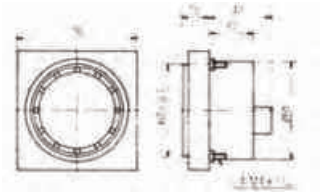




Type	Description	Price
TBY-220	220V	495.-
TBY-110	110V	
TBY-24D	24V	540.-
TBY-12D	12V	540.-

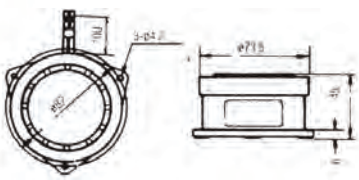
60 mm





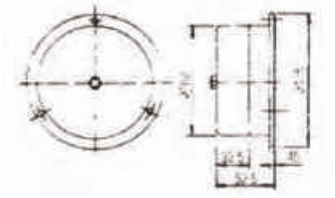
Type	Description	Price
TBN-220	220V	235.-
	110V	
TBN-24D	24V	310.-
TBN-12D	12V	310.-





Type	Price
4BL-220	925.-
4BL-24D (24VDC)	925.-





BLUE INCANDESCENT LAMP / NEON LAMP / LED LAMP

หลอดไฟธรรมดา / นีออน / LED

	Series no.	Code no.	Volt.	Rated current	ใช้สำหรับ	Price
	2S-9-6.3	2S-9-6.3	5V DC/AC	150mA	Incan for pilot lamp T2,TN2,TS2 BA9S	17.-
	2S-9-18	2S-9-18	18V DC/AC	66mA		20.-
	2S-9-24	2S-9-24	24V DC/AC	50mA		22.-
	2S-9-30	2S-9-30	30V DC/AC	40mA		25.-
	2S-9-12	2S-9-12	12V DC/AC	100mA		20.-
	2S-9-110R	2S-9-110R	110V AC-R	1.3mA	Neon for pilot lamp T2,TN2,TS2	32.-
	2S-9-110G	2S-9-110G	110V AC-G	1.3mA		32.-
	2S-9-220R	2S-9-220R	220V AC-R	2.2mA		32.-
	2S-9-220G	2S-9-220G	220V AC-G	2.2mA		32.-
	2S-9-380R	2S-9-380R	380V AC-R	1.15mA		32.-
	2S-9-380G	2S-9-380G	380V AC-G	1.15mA		32.-
	2S-9TL-6 R,Y,G,W,BL	LED-R,Y,G,W,BL	6V DC	9-13mA	LED for pilot lamp Illuminated TN2	91.-
	2S-9TL-12 R,Y,G,W,BL	LED-R,Y,G,W,BL	12V DC	9-13mA		91.-
	2S-9TL-24 R,Y,G,W,BL	LED-R,Y,G,W,BL	24V DC	8-13mA		91.-
	2S-9TL110 R,Y,G,W,BL	LED-R,Y,G,W,BL	110V AC	3-5mA		91.-
	2S-9-TL220 R,Y,G,W,BL	LED-R,Y,G,W,BL	220V AC	3-5mA		91.-
	2S-9TL-380 R,Y,G,W,BL	LED-R,Y,G,W,BL	380V AC			91.-
	2E-10-6.3	E10 6.3V	6.3V DC/AC	0.15W	For pilot lamp TPR,TPF,TPS 25 mm	20.-
	2E-10-12	E10 12V	12V DC/AC	1W		20.-
	2E-10-24	E10 24V	24V DC/AC	1W		20.-
	2E-10-30	E10 30V	30V DC	1W		25.-
	2E-10-110	E10 110V	110V AC	1W		65.-
	2E-10-220-R	E10 220V	220V AC	1W		65.-
	2E-10-380	E10 380V	380V AC	1W		-
	2E-12-12	E12 12V	12V	0.11W	For pilot lamp TPR,TPF,TPS,TPL 30 mm	25.-
	2E-12-18	E12 18V	18V	0.11W		25.-
	2E-12-24	E12 24V	24V	1W		25.-
	2E-12-30	E12 30V	30V	1W		65.-
	2E-12-110	E12 110V	110V	1W		65.-
	2E-12-220	E12 220V	220V	1W		-
	2E-12-380	E12 380V	380V	1W		-
	2T-4.5-6	T-4.5-6V	6V	0.3W	For T16	66.-
	2T-4.5-12	T-4.5-12V	12V	0.5W		66.-
	2T-4.5-18	T-4.5-18V	18V	0.5W		66.-
	2T-4.5-24	T-4.5-24V	24V	0.5W		66.-
	2T-4.5-30	T-4.5-28V	28V	0.7W		66.-
	2T-4.5-110G,R	T-4.5-110VG,R	110V	0.3W		66.-
	2T-4.5-220G,R	T-4.5-220VG,R	220V	0.3W		66.-
	2T1.75F6.3	T13/4 110V	6.3V DC/AC	110mA	Incan for TN16,T13/4 Base	66.-
	2T1.75F14	T13/4 14V	12V DC/AC	50mA		66.-
	2T1.75F28	T13/4 28V	28V DC/AC	25mA		66.-
	2T1.75F110G,R	T13/4 110V	110V DC/AC	1.5mA	Neon for TN16,T13/4	130.-
	2T1.75F220G,R	T13/4 220V	220V DC/AC	1.5mA		130.-
	2T1.75F380G,R	T13/4 380V	380V DC/AC	1.5mA		130.-
	2T1.75L6 R,Y,O	LED-R,Y,O	6V DC	26mA	LED for TN16	190.-
	2T1.75L12 R,Y,O	LED-R,Y,O	12V DC	26mA		190.-
	2T1.75L24 R,Y,O	LED-R,Y,O	24V DC	26mA		190.-
	2T1.75L6 BL,W,G	LED-BL,W,G	6V DC	26mA		210.-
	2T1.75L12 BL,W,G	LED-BL,W,G	12V AC	26mA		210.-
	2T1.75L24 BL,W,G	LED-BL,W,G	24V AC	26mA		210.-
	TL-12 R, O, Y, G, BL, W	LED	12V DC/AC	26mA	LED for TT16	170.-
	TL-24 R, O, Y, G, BL, W	LED	24V DC/AC	26mA		170.-
	TL-110 R, O, Y, G, BL, W	LED	110V AC	15mA		170.-
	TL-220 R, O, Y, G, BL, W	LED	220V AC	15mA		170.-
	2S-15-12-5W	S15-I49	12V DC/AC	5W	Incan for tower light 40, 50mm Incan for warning lamp TWR, TWK 08 220V	70.-
	2S-15-24-8W	S15-I47	24V DC/AC	8W		70.-
	2S-15-110-5W	S15-I41	110V AC	5W, 10W		70.-
	2S-15-220-5W	S15-I42	220V AC	5W, 10W		70.-

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

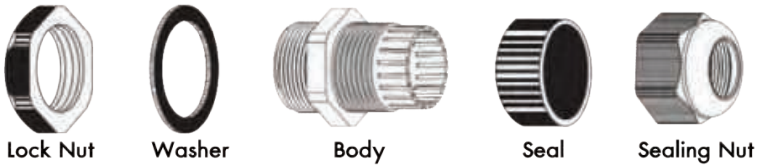
BLUE INCANDESCENT LAMP / NEON LAMP / LED LAMP
หลอดไฟธรรมดา / นีออน / LED

	Series no.	Code no.	Volt.	Rated current	ใช้สำหรับ	Price
	**2S-15L-12**	**2S-I69**	12V DC/AC	10W	Incan for tower light 60,70mm Incan for warning lamp TWF 08, 10, 12 12V	**70.-**
	2S-15L-24	**2S-I67**	24V DC/AC	10W		**70.-**
	2S-15L-110	**2S-I61**	110V AC	10W		**70.-**
	2S-15L-220	**2S-I62**	220V AC	10W		**70.-**
	**S15-L49R, Y, G, W, BL**	**S15-L49R, Y, G, W, BL**	12V DC/AC	0.1 A	LED for tower light 40mm LED for warning lamp TWL, TWF - 08	**485.-**
	S15-L47R, Y, G, W, BL	**S15-L47R, Y, G, W, BL**	24V DC/AC	0.03 A		**485.-**
	S15-L41R, Y, G, W, BL	**S15-L41R, Y, G, W, BL**	110V AC	0.02 A		**485.-**
	S15-L42R, Y, G, W, BL	**S15-L42R, Y, G, W, BL**	220V AC	0.02 A		**485.-**
	**S15-L59**	**S15-L59R, Y, G, W, BL**	12V DC/AC	0.1 A	LED for tower light 50, 60, 70mm	**485.-**
	S15-L57	**S15-L57R, Y, G, W, BL**	24V DC/AC	0.03 A		**485.-**
	S15-L51	**S15-L51R, Y, G, W, BL**	110V AC	0.02 A		**485.-**
	S15-L52	**S15-L52R, Y, G, W, BL**	220V AC	0.02 A		**485.-**
	**2S-15S-12-5W**	**S15-12**	12V	5W	Incan for warning lamp TWR, TWK 10 110V, 220V Incan for warning lamp TWR, TWK 08, 10, 12 12V, 110V, 220V Incan for warning lamp TWR, TWK 08, 10, 12, 24V	**65.-**
	**12V35W**	**S15-17**	12V	35W	Incan for warning lamp TWR, TWK 16, 18 12V, 110V, 220V TWF 16,18 12V	**66.-**
	24V35W	**S15-17**	24V	35W	Incan for warning lamp TWR, TWK 16, 18 TWF 16, 18 110V	**66.-**
	24V40W	**S15-17**	24V	40W	Incan for warning lamp TWF 16, 18 110V	**66.-**
	220V40W	**S15-17**	220V	40W	Incan for warning lamp TWF 16, 18 220V	**66.-**
	**2S-15-L61R, Y, G, W, BL**	**S15-L69R, Y, G, W, BL**	110V AC	0.02A	LED for warning lamp TWL, TWF - 10, 12	**540.-**
	2S-15-L62R, Y, G, W, BL	**S15-L67R, Y, G, W, BL**	220V AC	0.02A		**540.-**
	2S-15-L67R, Y, G, W, BL	**S15-L61R, Y, G, W, BL**	24V DC	0.05A		**540.-**
	2S-15-L69R, Y, G, W, BL	**S15-L62R, Y, G, W, BL**	12V DC	0.1A		**540.-**

*ขอสงวนสิทธิ์ในการเปลี่ยนแปลงราคา

tend CABLE GLAND
เคเบิ้ลแกลน





- **Thread : PG, PF and NPT**
- **Material : NYLON 66 (L 94V-2)**
- **Operating temperature : 40 ℃ ~ 100 ℃**

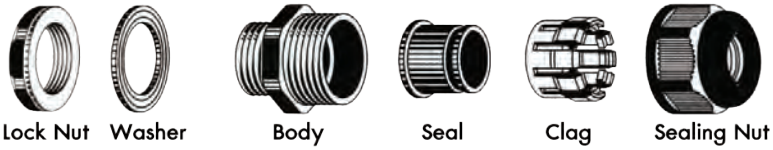
Type	Color		Cable	Wrench	OD (Thread)	Length (Thread)	Packaging	Remark	Price
	Black	Gray	Ø	L1	L2	A/E	PCS		
PG7	HPG7	HPG7GR	3-6.5	12.4	8	17/15	50		**32.-**
PG9	HPG9	HPG9GR	4-8	15.1	8	22/19	50		**36.-**
PG11	HPG11	HPG11GR	5-10	18.5	8	24/22	50		**36.-**
PG13.5	HPG13.5	HPG13.5GR	6-12	20.3	9	27/24	50		**44.-**
PG16	HPG16	HPG16GR	10-14	22.3	10	30/27	50		**44.-**
PG21	HPG21	HPG21GR	13-18	28	11	36/33	50		**66.-**
PG29	HPG29	HPG29GR	18-25	36.8	11	46/42	10		**110.-**
PG36	HPG36	HPG36GR	22-32	47	14	59/54	10		**125.-**
PG42	HPG42	HPG42GR	30-38	53.8	14	65/60	10		**155.-**
PG 48	HPG 48	HPG 48GR	34-44	58.1	15	70/65	10		**195.-**
PF 1/2"	HPF 12	HPF 12GR	6-12	20.5	9	27/24	50		**88.-**
NPT 3/8"	HPN 38	HPN 38GR	5-10	17	15	-/24	50	Without nut	**36.-**
NPT 1/2"	HPN 12	HPN 12GR	10-14	21.3	15	-/27	50		**44.-**
NPT 3/4"	HPN 34	HPN 34GR	13-18	26.6	15	-/33	50		**66.-**
NPT 1"	HPN 11	HPN 11GR	18-25	33.6	15	-/42	10		**110.-**
NPT 1 1/4"	HPN 114	HPN 114GR	22-32	42.1	17	-/54	10		**125.-**

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CABLE GLAND
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- **Thread : PG, PF and NPT**
- **Material : NYLON 66 (L 94V-2)**
- **Operating temperature : 40 ℃ ~ 100 ℃**

Type	Color		Cable	Wrench	OD (Thread)	Length (Thread)	Packaging	Price
	Black	Gray	Ø	L1	L2	A/E	PCS	
M12 x 1.5	HPM12	HPM12GR	3-6.5	11.8	15	17/15	50	**49.-**
M16 x 1.5	HPM16	HPM16GR	5-10	15.8	15	22/22	50	**58.-**
M20 x 1.5	HPM20	HPM20GR	10-14	19.8	15	27/27	50	**71.-**
M25 x 1.5	HPM25	HPM25GR	13-18	24.8	15	33/33	50	**105.-**
M32 x 1.5	HPM32	HPM32GR	18-25	31.8	15	42/42	10	**175.-**
M40 x 1.5	HPM40	HPM40GR	22-32	39.9	18	50/53	10	**195.-**
M50 x 1.5	HPM50	HPM50GR	30-38	49.9	18	59/60	10	**245.-**
M63 x 1.5	HPM63	HPM63GR	34-44	62.9	18	70/65	10	**310.-**

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