

## ▶ 16 Ø M6 SERIES

### ◆ Description

- Apparent shape:  
Round( $\phi$  18mm). Square(18×18mm).Rectangular(18×24mm).
- Install and remove the contact block easily.
- Gold-clad cross bar contact.
- Solder/plug-in terminal(#110)and P.C board terminal type.
- Light touch structure.
- Use of High Performance Engineering Plastics.
- protective grade  
IP65(IEC Pud 529)



### ◆ ELECTRICAL RATINGS

#### Contact

Rated insulation voltage	250V AC/DC
Rated current	5A

Operating Voltage	30V	125V	250V
Operating current(Resistive) AC	*	3A	2A
	DC	2A	0.4A *









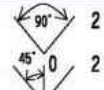

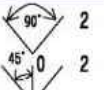

\*minimum applicable load(reference value):5V 1mA AC/DC

#### Lamp

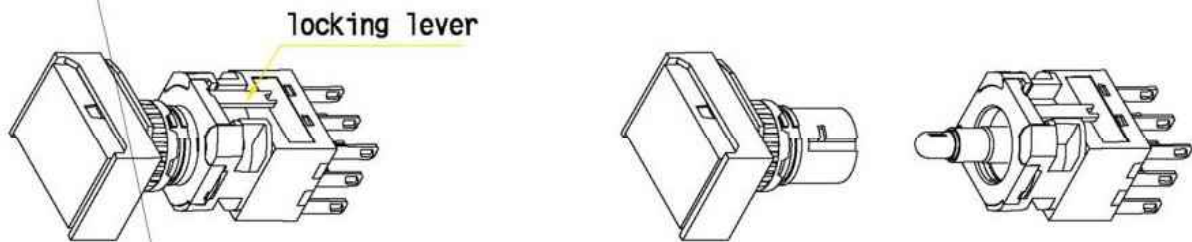
Lamp type	Rated voltage	Rated current	illumination color
Incandescent lamp(AC/DC)	6V	200mA	*
	14V	80mA	*
	28V	40mA	*
LED lamp (D C)	6V	25mA	Red(R) White(W)
	12V	25mA	Green(G) Blue(B)
	24V	25mA	Yellow(Y)
Neon lamp (A C)	110V	1.2mA	Red(R)
	220V	1.2mA	Green(G)

### SPECIFICATIONS

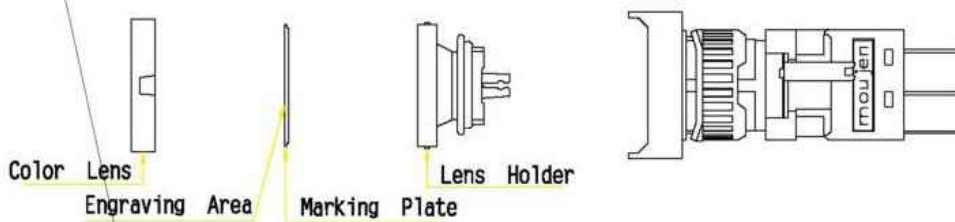
Operating Temperature	-25°C ~ +55°C (Without freezing)
Storage Temperature	-30°C ~ +80°C
Operating Humidity	45 ~ 85% RH
Contact Resistance	50mΩ maximum(initial value)
Insulation Resistance	100MΩ minimum(500V DC megger)
Dielectric strength	Between live part and ground:2500VAC:1minute
	Between terminals of different poles:2500VAC:1minute
	Between terminals of the same poles:1000VAC:1minute
Vibration Resistance	Operating extremes:5~55Hz,Amplitude 1.0mmp-p
	Damage limits:1000m/s <sup>2</sup> (Approx:100G)
	Operating extremes:1000m/s <sup>2</sup> (Approx:10G)
Mechanical Life (min)	Momentary:2,000,000
	Alternate:250,000
	Selector switch:250,000
Electrical Life (min)	Momentary:100,000(1800 operations/hour)
	Alternate:100,000(1200 operations/hour)
	Selector switch:100,000
Protection Degree	IP65(IEC Pud 529)

Type	M6L- Pilot Light	M6P- Illuminated push buttons Push buttons	M6S- Illuminated selector/ Selector switches	M6K- Key selector switches
Shape				
				
Contac	*	1C	1C	1C
	*	2C	2C	2C
Function	Incandescent illumination LED illumination Neon illumination	Incandescent illumination LED illumination Neon illumination non-illumination color R.G.Y.O.W.B.	2 position  2 3 position  2 Incandescent illumination LED illumination Neon illumination	2 position  2 3 position  2
Illumination color	Incandescent illumination : Red(R) LED illumination : Red(R) Neon illumination : Red(R)	Green(G) Green(G) Green(G)	Yellow(Y) Orange(O) Yellow(Y) Orange(O) Yellow(Y) Orange(O)	White(W) Blue(B) White(W) Blue(B) White(W) Blue(B)

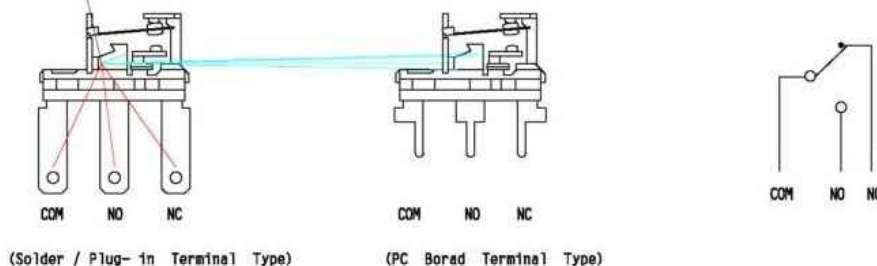
**Removing the contact block : turning the locking lever to the left.**



**Replacement of lens and marking plate: with the lens removal tool.**



**Switch unit.**



## ▶ 16 Ø M6 SERIES

### ◆ Pilot Lights



#### Type No

ø 16mm series code **M6 L-**   -    
① ② ③ ④  
 pilot light

#### 1 Shape

Shape	Code
Round	A
Square	B
Rectangular	C

#### 2 Terminal Style

Terminal	Code
Solder/Plug-in	S
PC board	P



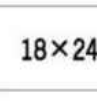
#### 3 Lamp

Incandescent (AC/DC)		Neon (AC)		LED (DC)	
V	Code	V	Code	V	Code
6V	06	110V	110	6V	06E
14V	14	220V	220	12V	12E
28V	28	*	*	24V	24E

- Neon lamp color : Red (R) Green (G)
- LED lamp color : Red (R) Green (G) Yellow (Y)  
White (W) Blue (B)

#### 4 Lens Color

Color	Code
Red	R
Green	G
Yellow	Y
Orange	O
White	W
Blue	B

Shape	Type No.
 φ 18	M6L-AS <input type="checkbox"/> <input type="checkbox"/>
	M6L-AP <input type="checkbox"/> <input type="checkbox"/>
 18×18	M6L-BS <input type="checkbox"/> <input type="checkbox"/>
	M6L-BP <input type="checkbox"/> <input type="checkbox"/>
 18×24	M6L-CS <input type="checkbox"/> <input type="checkbox"/>
	M6L-CP <input type="checkbox"/> <input type="checkbox"/>

Example: M6L-AS     (Round, Solder/Plug-in Terminal, Incandescent lamp 28V, Yellow)

M6L- BP     (Square, P.C board Terminal, LED lamp 6V DC, Red)





## ◆ Key Selector Switches



Type No

ø 16mm series code **M6** Key Switch **K-**     -   
 ① ② ③ ④ ⑤

### ① Shape

Shape	Code
Round	A
Square	B
Rectangular	C

### ② Operation

Position	Position		Code
	1	2	
2 Position	Maintained		20
	Spring return from right		22
3 Position	Maintained		30
	Spring return from left		31
	Spring return from right		32
	2-way Spring return		33

### ③ Terminal Style

Terminal	Code
Solder/Plug-in	S
PC board	P

### ④ Contact

Contact	Code
1C	1
2C	2

### ⑤ Key Removal Position

Position	Code
	A
	B
	C
	A
	B
	C
	D
	E
	G
	H

※ Key is removable at O Positions

Shape	Position		Contact	Type No.
	2 Position	Maintained		1C M6K - □ 20S1- □ 2C M6K - □ 20S2- □
		Spring return from right		1C M6K - □ 22S1- □ 2C M6K - □ 22S2- □
	3 Position	Maintained		2C M6K - □ 30S2- □
		Spring return from left		2C M6K - □ 31S2- □
Spring return from right			2C M6K - □ 32S2- □	
	3 Position	2-way Spring return		2C M6K - □ 33S2- □

※If you don't point out the key removable positions ,key removable from all the positions will be furnished as a standard. (cod"A")

※This list is only for solder/plug-in terminal type.

※The Type No. of P.C board terminal type is as example below.

Example: M6K -  A 20S1 -  A  
 Solder/plug-in terminal

M6K -  A 20P1 -  A  
 P.C board terminal

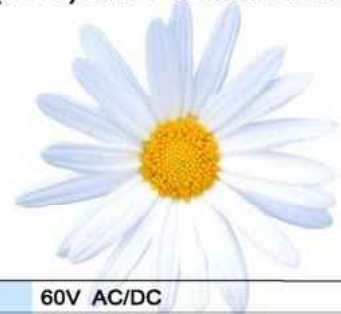
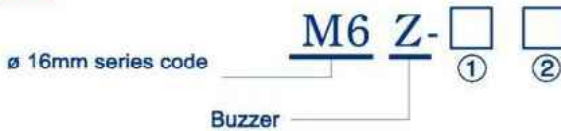
## ▶ 16 Ø M6 SERIES

### ◆ Buzzer

- Steady sound intermittent sound
- Intermittent sound:
  - slow → 55 cycles/minute
  - Quick → 600 cycles/minute
- Sound Pressure: 80dB min at the rated voltage/0.1m
- Sound Frequency: 2KHZ±500HZ.
- Apparent Shape: 18×24mm
- Solder/Plug-in terminal (#110) and PC board terminal



### Type No



#### 1 Rated

Operating Voltage	Code
6V AC/DC	06
12~24 AC/DC	24

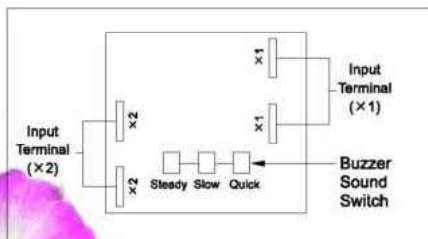
#### 2 Terminal Style

Terminal	Code
Solder/Plug-in	S
PC board	P

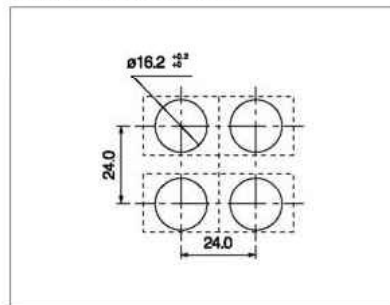
Insulation Voltage	60V AC/DC
Operating Voltage	6V or 12~24V AC/DC
Current Draw	DC: 7mA AC: 20mA
Sound Frequency	2KHZ ± 500HZ
Flickening Cycle	Slow intermittent sound: 55/minute Quick intermittent sound: 600/minute
Sound Pressure	Steady sound: 80dB minimum (at the rated voltage/0.1m)
Operating Temperature	-20° ~ 55°C (without freezing)
Operating Humidity	45% ~ 85%RH
Insulation Resistance	100MΩ minimum (500V DC megger)
Dielectric Strength	Between live and dead part: 1000 V AC 1minute
Vibration Resistance	Operating extremes:5~55HZ Amplitude 1mm p-p
Shock Resistance	Damage limits: 1000m/sec <sup>2</sup> (Approx:100G)
Life	1000 hours minimum

Operatig Voltage	Type No.	
	Solder/Plug-in Terminal	PC board Terminal
6V AC/DC	M6Z-06S	M6Z-06P
12~24 AC/DC	M6Z-24S	M6Z-24P

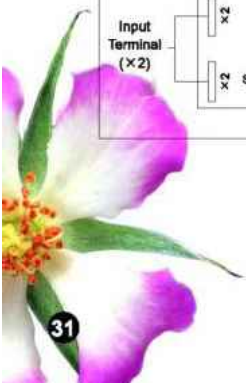
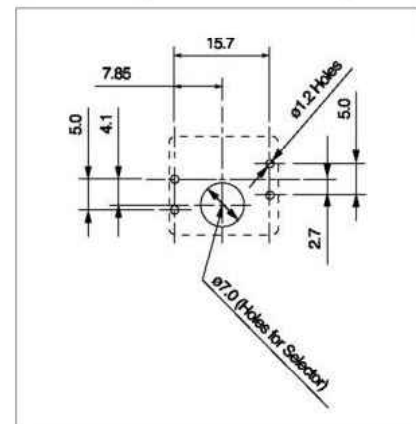
### TERMINAL ARRANGEMENT (BOTTOM VIEW)



### PANEL CUT-OUT






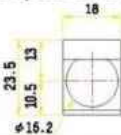




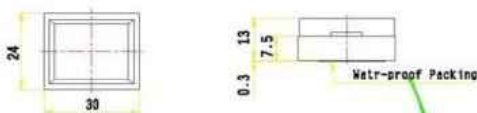


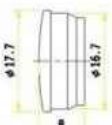
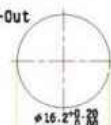
### PC BOARD DRILLING LAYOUT (BOTTOM VIEW)






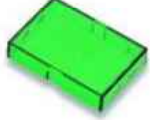










## ◆ ACCESSORIES

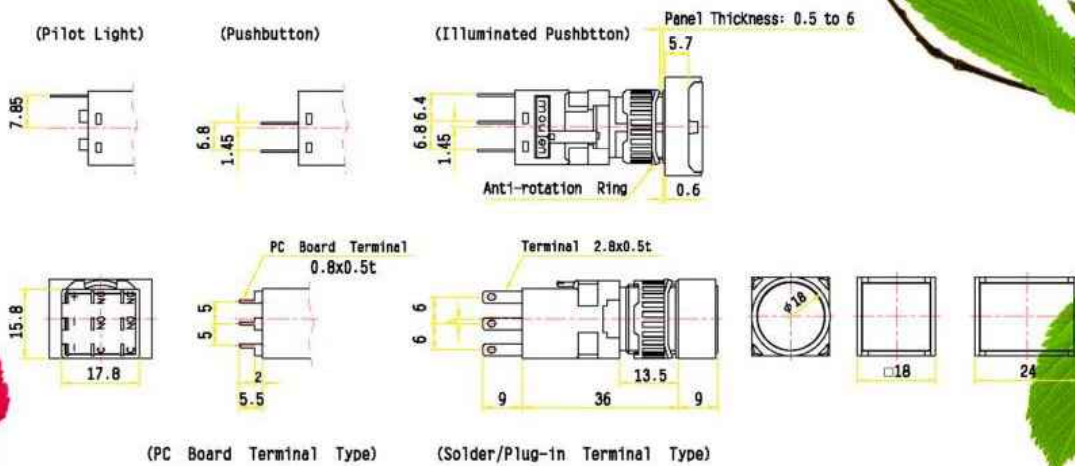
Category	Shape	Type No.	Function. Specifications
Incandescent Lamp		L-06	6V AC/DC 200mA
		L-14	14V AC/DC 80mA
		L-28	28V AC/DC 40mA
LED Lamp LED		L-06E <input type="checkbox"/>	6V DC 25mA Color: Red (R)
		L-12E <input type="checkbox"/>	12V DC 25mA Green (G) Yellow (Y)
		L-24E <input type="checkbox"/>	24V DC 25mA White(W) Blue(B)
Fill in the color code in <input type="checkbox"/>			
Neon Lamp		L-110 <input type="checkbox"/>	110V AC 1.2mA Color: Red (R)
		L-220 <input type="checkbox"/>	220V AC 1.2mA Green (G)
Fill in the color code in <input type="checkbox"/>			
Protection Cap		M-261	for round and square head push buttons 
		M-262	for rectangular head push buttons 
Dust-Proof Cover		M-270	for round head push buttons 
		M-271	for square head push buttons 
		M-272	for rectangular head push buttons 
Terminal Cover		M-232	protection contacts against touching 
Blanking Plug		M-231	 Panel Cut-Out 

Category	Shape	Type No.	Function. Specifications		
Mounting Wrench		M-030	Used for tightening the nut.		
Lens Removing		M-170	Used for replacing the color lens.		
Lamp Extractor		M-230	Used for replacing the lamp.		
Color Lens		M-218A <input type="checkbox"/>	<p>◎Fill in the color code in <input type="checkbox"/></p> <p>Color: R.G.Y.O.W.B  Red (R). Green (G). Yellow (Y)  Orange (O). White (W). Blue (B).</p>		
		M-218B <input type="checkbox"/>			
		M-218C <input type="checkbox"/>			
		M-218D <input type="checkbox"/>		Opaque	Color: R.G.Y
		M-218E <input type="checkbox"/>		Transparent	Color: R.G.Y
Marking Plate		M-217A <input type="checkbox"/>	<p>◎Fill in the marking in <input type="checkbox"/></p> <p>Markings: ON. OFF. STAR. STOP. UP. DOWN.  FWD. REV. AUTO. MAN. POWER.  RESET. ↑ ↓ ← →</p>		
		M-217B <input type="checkbox"/>			
		M-217C <input type="checkbox"/>			

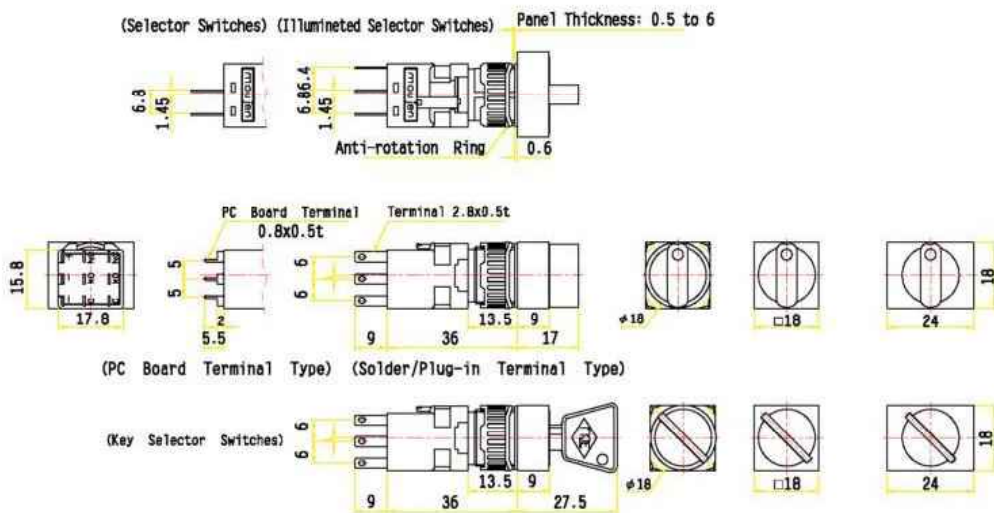
## ▶ 16 Ø M6 SERIES

### ◆ DIMENSIONS

#### A. Pilot/Lights. Pushbuttons. Illuminated Pushbuttons



#### B. Selector. Switches. Illuminated Selector Switches. Key Selector Switches.

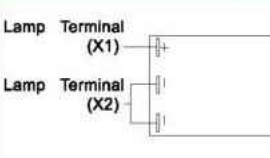
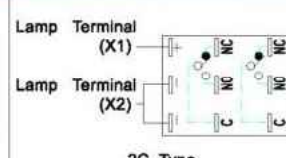
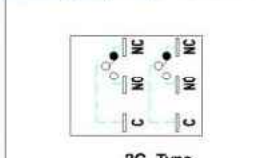
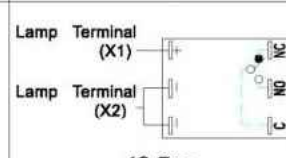
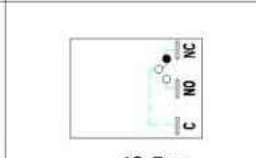


#### C. Switch Unit.

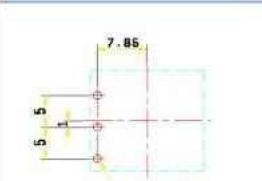
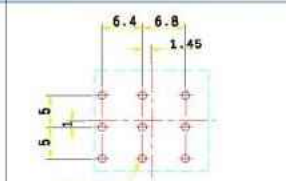
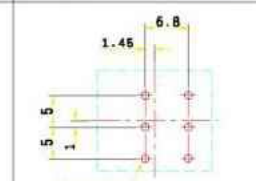


# ◆ DIMENSIONS

## Terminal Arrangement(Bottom View)

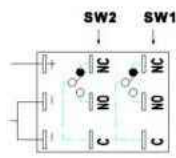
Pilot Light	Illuminated Pushbutton Illuminated Selector Switch Illuminated Emergency Stop Switch	Pushbutton Selector Switch Key Selector Switch Emergency Stop Switch
	 <p>2C Type</p>	 <p>2C Type</p>
	 <p>1C Type</p>	 <p>1C Type</p>

## P.C Board Drilling Layout (Bottom View)

Pilot Light	Illuminated Pushbutton Illuminated Selector Switch Illuminated Emergency Stop Switch	Pushbutton Selector Switch Key Selector Switch Emergency Stop Switch
 <p>7.85 5 5 φ1.2 holes</p>	 <p>6.4 6.8 1.45 5 5 φ1.2 holes</p>	 <p>6.8 1.45 5 5 φ1.2 holes</p>

## Operating Position/Contact Position (Selector switches and Key Switches)

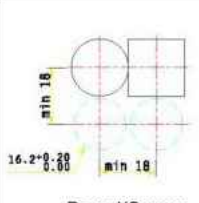
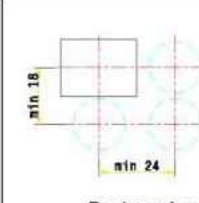
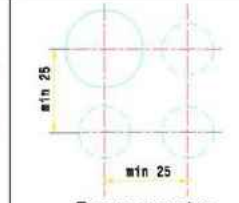
2 Position		3 Position	
1C	2C (SW1) (SW2)	2C (SW1) (SW2)	

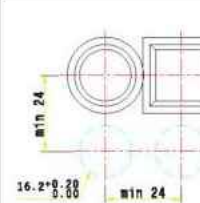
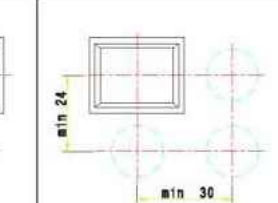


(Bottom View)

## Panel Cut-Out (Use Dust-Proof Cover)

### Panel Cut-Out

 <p>min 18 16.2±0.20 min 18</p> <p>Round/Square</p>	 <p>min 18 min 24</p> <p>Rectangular</p>	 <p>min 25 min 25</p> <p>Emergency stop</p>
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 <p>min 24 16.2±0.20 min 24</p> <p>Round/Square</p>	 <p>min 24 min 30</p> <p>Rectangular</p>
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