

# ONPOW

中国·红波 | 欧宝龙

## 关键时刻 · 尽显专业本

我们拥有6~30mm金属信号灯、10~40mm金属按钮开关  
种类齐全，品质始终如一



系列产品，



### Product introduction

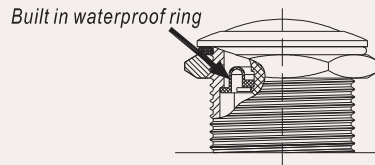
Metal button switch is a high-quality button switch independently developed by our company with dozens of independent intellectual property rights. The products include indicator light, button, self-locking button, button with light, knob, knob with light, key button, emergency stop button, buzzer and other specifications.

After years of painstaking research and continuous innovation efforts of all colleagues in the company, the metal button switch has formed a multi-functional structure. The series of multiple specifications go hand in hand and are gradually recognized by well-known enterprises in various industries at home and abroad (especially large comprehensive enterprises in Europe and America.) The products have also been developed with various large-scale mechanical equipment, medical equipment, automobile operation key surface, bathroom supporting equipment, office equipment, hotel decoration, field digital products, computer equipment and so on come into everyone's sight.

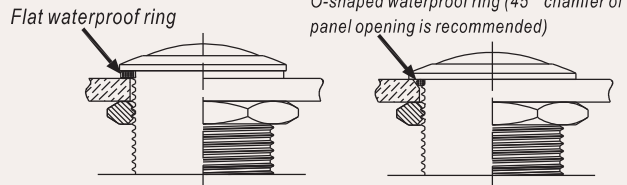
### Degree of protection

Compared with the plastic button switch, the metal button switch not only has a perfect improvement in the shell protection level (IK level) of the product, but also has made a lot of articles on the IP dust-proof and waterproof level of the product. Most products have met the requirements of IP65, and many products have realized the waterproof function of IP67 (short-time immersion) and above. The product name is also honored to be replaced by "waterproof button switch" by customers.

#### Schematic diagram of built-in waterproof ring



#### Installation effect drawing of waterproof ring



Note: different products have different default waterproof rings, and customers can also change the waterproof rings according to their needs.

### Custom logo

Metal button switch, laser engraving characters and patterns on the key surface or customizing luminous characters and patterns has become a trend. The customized metal operation key surface not only makes the equipment novel and eye-catching and unique, but also has become a new fashion trend in the electrical industry.

#### Custom logo example



See the attached page for more Icon symbols (example of logo)

### Product change

⦿ All specifications and descriptions in this manual are subject to change without notice.

**GQ10-K Series model description**

GQ10-K-□■◇/△▲/◎

Symbol	Symbol name	Specify
□	Contact Structure	11: 1NO1NC / No digit means indicator lamp
■	Operation type	Z: Latching / No letter means momentary
◇	Illuminated Type	E: ○ Ring illuminated / No letters mean no lights
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V All have built-in resistors, other voltage levels can be customized, and external resistors are required
◎	Housing Material	S: Stainless steel

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

**Performance Characteristic**

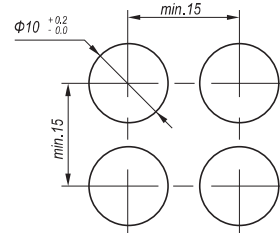
Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤50mΩ
Insulation Resistance	≥100MΩ (500VDC)
Max. withstanding voltage	1000VAC
Mechanical Life	Momentary≥200,000 cycles, Latching≥100,000 cycles
Electrical Life	50,000 cycles
Operation Travel	About 2.5mm
Torque	About 1.2N
Solder heat resistance	320°C 3s

**Switch Rating**

Rated Insulation Voltage Ui		250V				
Thermal Current I <sub>th</sub>		3A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	-	-	1A	0.5A
		Inductive load	-	-	0.7A	0.5A
	DC	Resistive load	1A	1A	0.2A	-
		Inductive load	0.7A	0.7A	0.1A	-
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)  
Application scope depends on operating environment and load type.

**Mounting Hole Dimension**



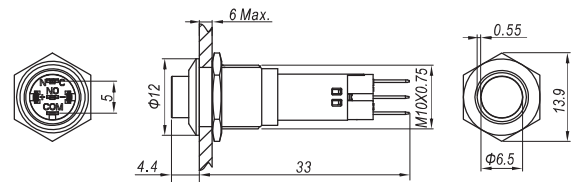
**LED Specifications**

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥40000 hours	≤24V about 15mA	DC: ±10%	<p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>

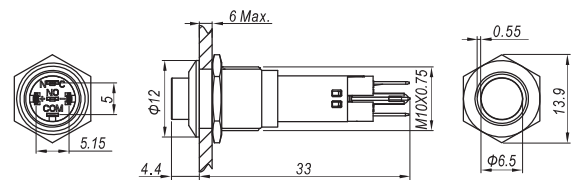
**Shape Specification Dimension**



Contact Structure 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material Stainless steel  
 Protection class IP40  
 Tail configuration Wiring patch(1.8x0.4mm)



Contact Structure 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Illuminated Type Ring illuminated  
 LED Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material Stainless steel  
 Protection class IP40  
 Tail configuration Wiring patch(1.8x0.4mm)





**LAS4GQ Series model description**

LAS4GQH-□ ■ ◇ / △ / ▲ / ◎

Symbol	Symbol name	Specify
□	Contact Structure	11: 1N01NC / No digit means indicator lamp
■	Operation type	Z: Latching / No letter means momentary
◇	Illuminated Type	E: ○ Ring illuminated / No letters mean no lights
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V All have built-in resistors, other voltage levels can be customized, and external resistors are required
◎	Housing Material	S: Stainless steel

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

**Performance Characteristic**

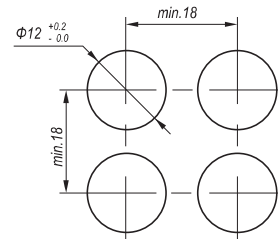
Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤ 50mΩ
Insulation Resistance	≥ 100MΩ (500VDC)
Max. withstanding voltage	1000V AC
Mechanical Life	Momentary ≥ 200,000 cycles, Latching ≥ 100,000 cycles
Electrical Life	50,000 cycles
Operation Travel	About 2.5mm
Torque	About 1.4N
Solder heat resistance	320°C 3s

**Switch Rating**

Rated Insulation Voltage Ui		250V				
Thermal Current Ith		3A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	-	-	1A	0.5A
		Inductive load	-	-	0.7A	0.5A
	DC	Resistive load	1A	1A	0.2A	-
		Inductive load	0.7A	0.7A	0.1A	-
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)  
Application scope depends on operating environment and load type.

**Mounting Hole Dimension**



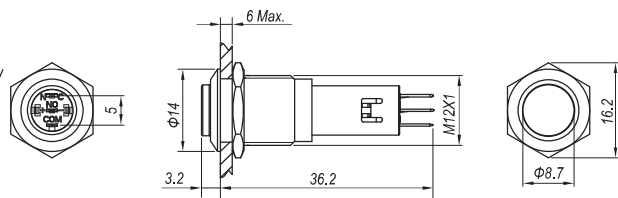
**LED Specifications**

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥ 40000 hours	≤ 24V about 15mA	DC: ± 10%	<p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>

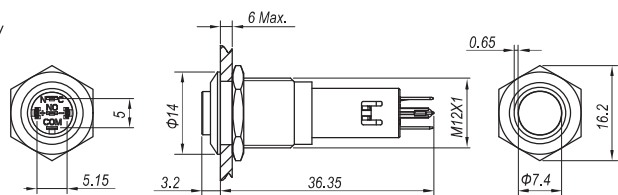
**Shape Specification Dimension**



Contact Structure 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material Stainless steel  
 Protection class IP40 (IP67 can be customized)  
 Tail configuration Wiring patch (1.8x0.4mm)



Contact Structure 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Illuminated Type Ring illuminated  
 LED Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material Stainless steel  
 Protection class IP40 (IP67 can be customized)  
 Tail configuration Wiring patch (1.8x0.4mm)





## GQ12 series

- ☆ the installation aperture is  $\Phi 12\text{mm}$ ;
- ☆ the switch is "self recovery | slow action | single pole single throw";
- ☆ the biggest features of this series are "bright colors" and "small volume";
- ☆ the buttons are available in 7 colors: red, green, blue, orange, yellow, white and black (only for zinc aluminum alloy shell products);
- ☆ the shell is made of brass, stainless steel and zinc aluminum alloy, and the shortest distance from the panel to the end of the product is only 12.9mm which greatly meets the various needs of users;
- ☆ the waterproof grade of the product is IP65 / IP67.



### GQ12 series model description

GQ12★-10◆/△/▲/◎

Symbol	Symbol name	Specify
★	Head shape	B: spherical / S: square / G: High spherical
10	Contact Structure	10: 1NO
◆	Wiring type	J: Wiring patch / No letters means terminals
△	Colour	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V All have built-in resistors, other voltage levels can be customized, and external resistors are required
◎	Housing Material	N: Nickel plating on brass / S: Stainless steel / A: Zinc aluminum alloy (Black) / T: Zinc aluminum alloy (White)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A /36VDC
Mechanical Life	1,000,000 cycles
Electrical Life	200,000 cycles
Nut torque	About 0.3Nm
Torque	About 3.5N
Operation Travel	About 2mm
Protection class	IP65(IP67 can be customized), IK08

### Standards and certification


Corresponding standard	Certification mark	Certification authority / certification number
EN61058-1:2018	CE	UDEM/M.2021.206.C62197

### Switch structure description

Type	Diagram	Symbol
X		

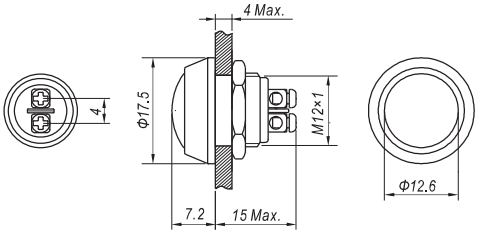

### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA	DC: $\pm 10\%$	 The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.



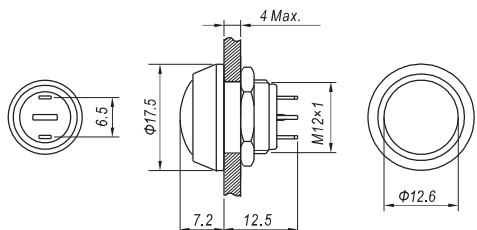

**GQ12B-10/⊙**

Contact Structure	1NO
Operation type	Momentary
Housing Material ⊙	N: Nickel plating on brass / S: Stainless steel
Wiring type	Terminals
Protection class	IP65(IP67 can be customized), IK08
Applicable accessories	M12-12

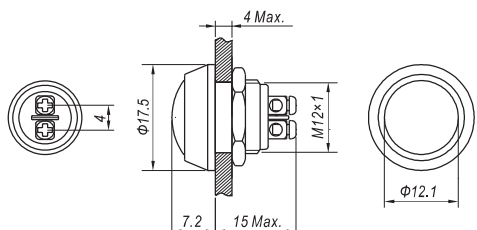

**GQ12B-10/JI/⊙**

Contact Structure	1NO
Operation type	Momentary
Housing Material ⊙	N: Nickel plating on brass / S: Stainless steel
Wiring type	Wiring patch(2x0.5mm)
Protection class	IP65(IP67 can be customized), IK08
Applicable accessories	M12-12

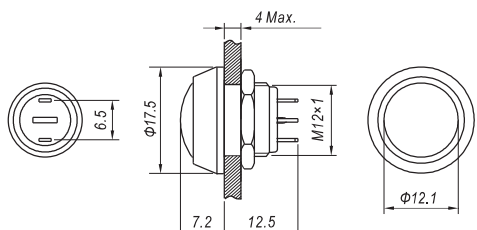

**GQ12B-10/△/A**

Contact Structure	1NO
Operation type	Momentary
Button cover color △	R G Y B W N
Housing Material ⊙	Zinc aluminum alloy (Black)
Wiring type	Terminals
Protection class	IP65(IP67 can be customized), IK08
Applicable accessories	M12-12

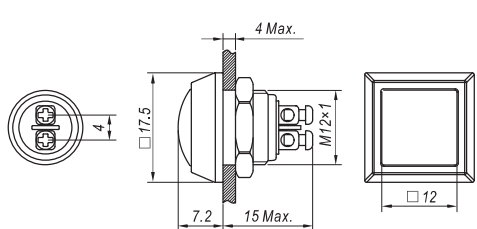

**GQ12B-10/JI/△/A**

Contact Structure	1NO
Operation type	Momentary
Button cover color △	R G Y B W N
Housing Material ⊙	Zinc aluminum alloy (Black)
Wiring type	Wiring patch(2x0.5mm)
Protection class	IP65(IP67 can be customized), IK08
Applicable accessories	M12-12

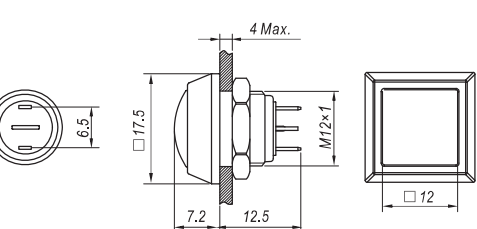
**GQ12S-10/△/⊙**

Contact Structure	1NO
Operation type	Momentary
Button cover color △	R G Y B W N
Housing Material ⊙	A: Zinc aluminum alloy (Black) / T: Zinc aluminum alloy (White)
Wiring type	Terminals
Protection class	IP65(IP67 can be customized), IK08

**GQ12S-10/JI/△/⊙**

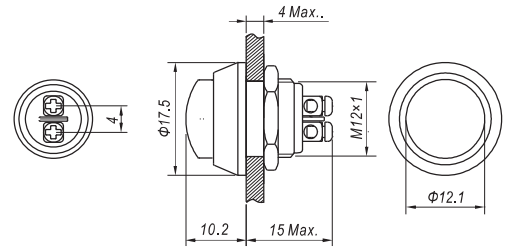
Contact Structure	1NO
Operation type	Momentary
Button cover color △	R G Y B W N
Housing Material ⊙	A: Zinc aluminum alloy (Black) / T: Zinc aluminum alloy (White)
Wiring type	Wiring patch(2x0.5mm)
Protection class	IP65(IP67 can be customized), IK08





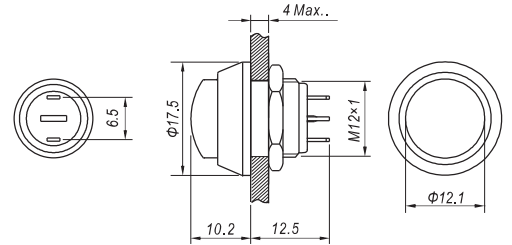

GQ12G-10/Δ/A

Contact Structure 1NO  
 Operation type Momentary  
 Button cover color Δ R G Y B W N  
 Housing Material ○ Zinc aluminum alloy (Black)  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08



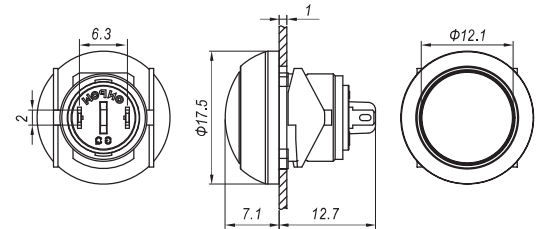
GQ12G-10/JI/Δ/A

Contact Structure 1NO  
 Operation type Momentary  
 Button cover color Δ R G Y B W N  
 Housing Material ○ Zinc aluminum alloy (Black)  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK08



GQ12B-10/JI/Δ/PA

Contact Structure 1NO  
 Operation type Momentary  
 Button cover color Δ R G Y B W N  
 Housing Material ○ PA  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK08





## GQ12-A series

- ☆ the installation aperture is  $\Phi 12\text{mm}$ ;
- ☆ the switch is "self recovery | slow action | single pole single throw";
- ☆ the products have complete types of lamps (single point, ring and power symbols);
- ☆ the product has two kinds of heads: low flat and high flat, which can be selected by users;
- ☆ the waterproof grade of the product is IP65 / IP67.

### GQ12-A series model description

GQ12-A★-□◇/J/ △/ ▲/ ◎

Symbol	Symbol name	Specify
★	Head shape	F: Flat round / H: High round
□	Contact Structure	10: 1NO / No digital means indicator
◇	Illuminated Type	D: ● Dot illuminated / E: ○ Ring illuminated / DT: ☹ Ring+power symbol illuminated / No letters mean no lights
◆	Wiring type	J: Wiring patch
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V All have built-in resistors, other voltage levels can be customized, and external resistors are required
◎	Housing Material	C: Brass chrome plating / S: Stainless steel / A: Zinc aluminum alloy (Black)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.



### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A / 36VDC
Mechanical Life	500,000 cycles
Electrical Life	200,000 cycles
Base material	PA
Nut torque	About 0.3Nm
Torque	About 1.5N
Operation Travel	About 1.5mm
Protection class	IP65(IP67 can be customized), IK07


### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
EN61058-1:2018	CE	UDEM/M.2021.206.C62197

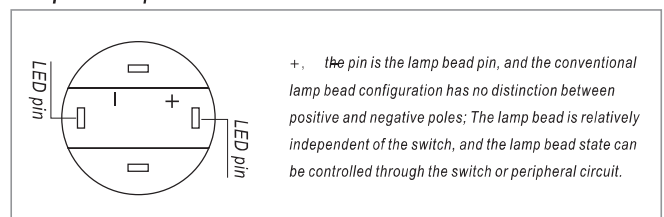
### Switch structure description

Type	Diagram	Symbol
X		

### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA	DC: $\pm 10\%$	 <small>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</small>

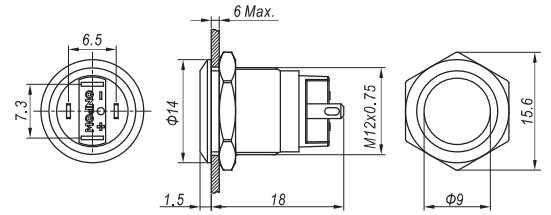
### LED pin description





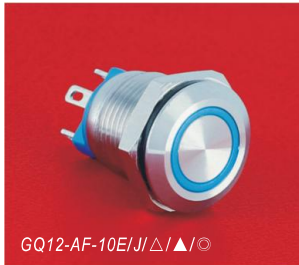
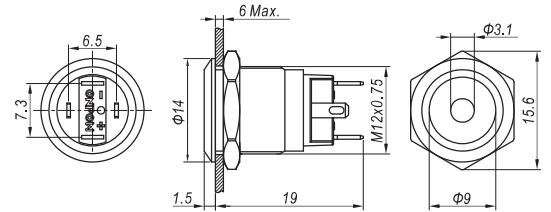
GQ12-AF-10/JI

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel / A: Zinc aluminum alloy (Black)  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12F



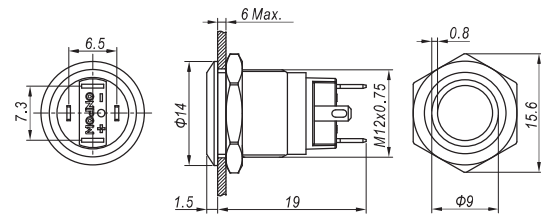
GQ12-AF-10D/JI

Contact Structure 1NO  
 Operation type Momentary  
 LED color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12F



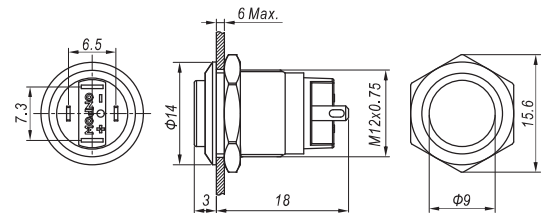
GQ12-AF-10E/JI

Contact Structure 1NO  
 Operation type Momentary  
 LED color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel / A: Zinc aluminum alloy (Black)  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12F



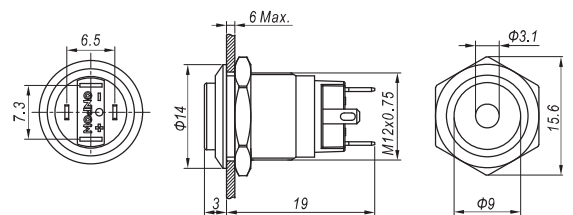
GQ12-AH-10/JI

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12H



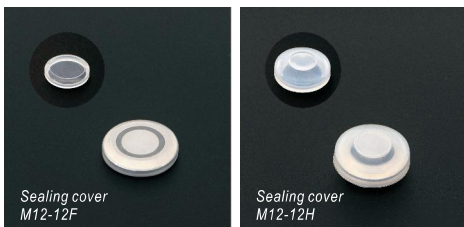
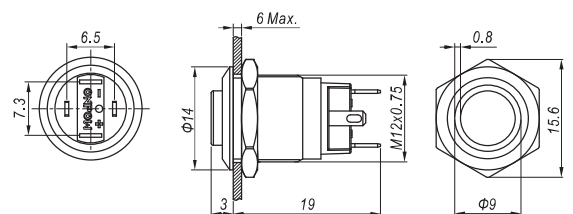
GQ12-AH-10D/JI

Contact Structure 1NO  
 Operation type Momentary  
 LED color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12H



GQ12-AH-10E/JI

Contact Structure 1NO  
 Operation type Momentary  
 LED color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12H

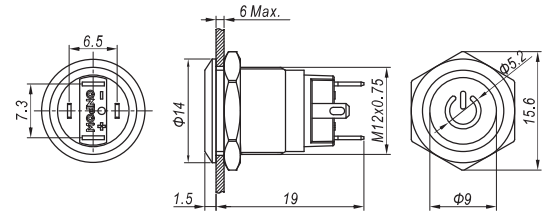


Sealing cover M12-12F

Sealing cover M12-12H



Contact Structure 1NO  
 Operation type Momentary  
 LED color △ R G Y B W  
 Voltage▲ 6V/12V/24V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2x0.5mm)  
 Protection class IP65(IP67 can be customized), IK07  
 Applicable accessories M12-12F





GQ12-C series model description

GQ12-CH-□Z◇/J/△/▲/◎

Symbol	Symbol name	Specify
H	Head shape	H: High round
□	Contact Structure	10: 1NO / No digital means indicator
Z	Operation type	Z: Latching
◇	Illuminated Type	E: ○ Ring illuminated / No letters mean no lights
J	Wiring type	J: Wiring patch
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V (Due to the structural problems of white and yellow lamp beads, they can only be applied to DC at present)
◎	Housing Material	S: Stainless steel

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

Performance Characteristic

Operating Temp	-25℃~+55℃ (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤ 50mΩ
Insulation Resistance	≥ 100MΩ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320℃ 3s
Switch rating	1A/36VDC
Mechanical Life	200,000 cycles
Electrical Life	50,000 cycles
Base material	PA66
Nut torque	About 0.6Nm
Torque	About 3.5N
Operation Travel	About 2.5mm
Protection class	IP40(IP65 can be customized)

Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
EN61058-1:2018	CE	UDEM/M.2021.206.C62197

Switch structure description

Type	Diagram	Symbol
X		

LED Specifications

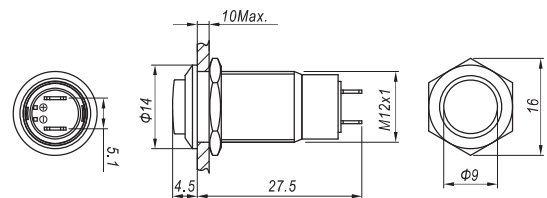
LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥40000 hours	≤24V about 15mA	DC: ± 10%	<p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>

Shape	Specification	Dimension
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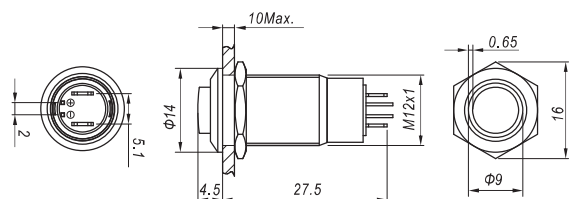
GQ12-CH-10Z/J/S

Contact Structure 1NO  
 Operation type Latching  
 Housing Material ◎ Stainless steel  
 Wiring type Wiring patch(2.8x0.5mm)  
 Protection class IP40(IP65 can be customized)



GQ12-CH-10ZE/J/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 LED color △ R G Y B W  
 Voltage ▲ 6V/12V/24V  
 Housing Material ◎ Stainless steel  
 Wiring type Wiring patch(2.8x0.5mm)  
 Protection class IP40(IP65can be customized)4



## GQ16 series

- ☆ the installation aperture is  $\Phi$  16mm;
- ☆ the switch is "self recovery | slow action | single pole single throw";
- ☆ this series is the main series of the company, which is very rich in the selection of head shape, lamp type, wiring type and shell material (refer to the details page for details);
- ☆ waterproof grade IP65/IP67.



### GQ16 series model description

GQ16★-□◇/◆/△/▲/◎

Symbol	Symbol name	Specify
★	Head shape	B: spherical / F: Flat round / H: High round
□	Contact Structure	10: 1NO / No digital means indicator / Some products can be customized with 1NC
◇	Illuminated Type	D: ● Dot illuminated / E: ○ Ring illuminated / ET: ⊕ Ring+power symbol illuminated / No letters mean no lights
◆	Wiring type	J: Wiring patch / No letters means terminals
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V All have built-in resistors, other voltage levels can be customized.
◎	Housing Material	N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing)
	Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤ 50mΩ
Insulation Resistance	≥ 100MΩ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A/36VDC 0.5A/220V
Mechanical Life	1,000,000 cycles
Electrical Life	50,000 cycles
Base material	PBT(Products without lights) / PA(Products with lamps)
Nut torque	About 0.6Nm
Torque	About 4N
Operation Travel	About 24mm
Protection class	IP65(IP67 can be customized),IK08

### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017	CCC	2020970305003360
UL508	cRUUS	UL/E254023
EN61058-1:2018	CE	UDEMI/M.2021.206.C62197

### Switch structure description

Type	Diagram	Symbol
X		
Y		

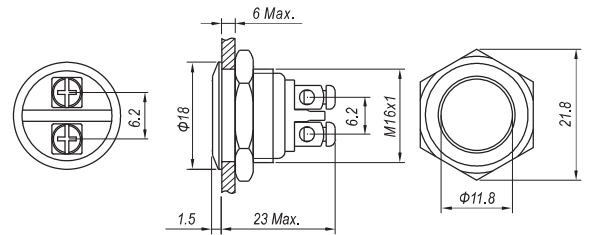
### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥ 40000 hours	≤ 24V about 15mA ≥ 110V about 2mA	DC: ± 10%	 The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.



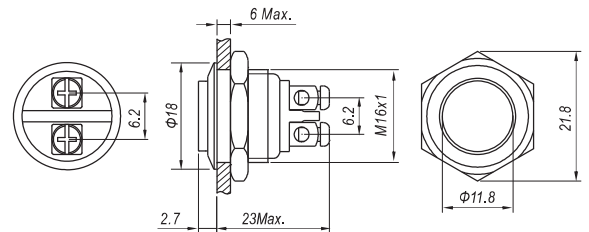
GQ16F-10/0

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material  $\odot$  N: Nickel plated brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories M12-16F



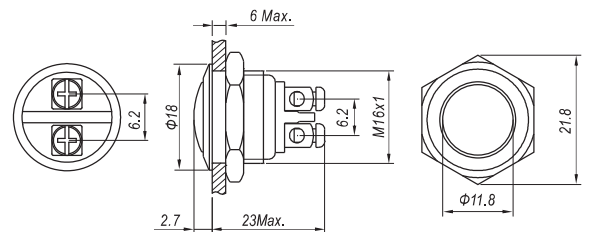
GQ16H-10/0

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material  $\odot$  N: Nickel plated brass / S: Stainless steel  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories M12-16H



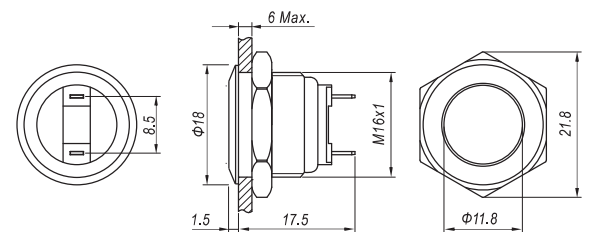
GQ16B-10/0

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material  $\odot$  N: Nickel plated brass / S: Stainless steel  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories M12-16H



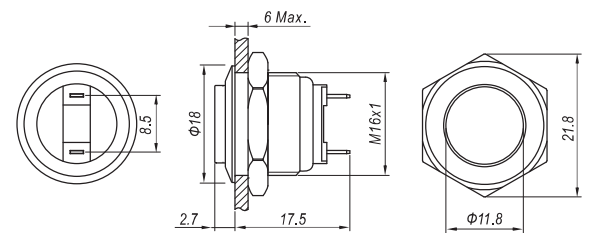
GQ16F-10/J/0

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material  $\odot$  N: Nickel plated brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Wiring type Wiring patch (2 x 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories M12-16F



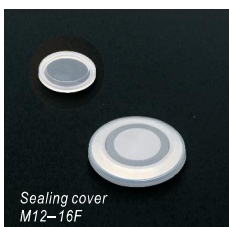
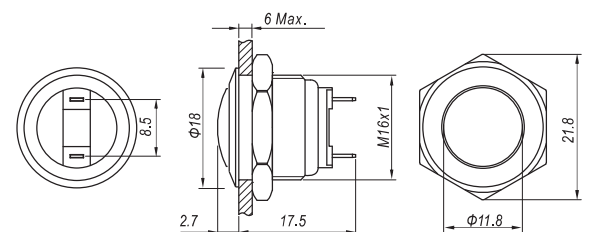
GQ16H-10/J/0

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material  $\odot$  N: Nickel plated brass / S: Stainless steel  
 Wiring type Wiring patch (2 x 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories M12-16H

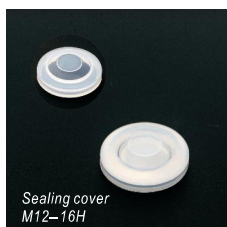


GQ16B-10/J/0

Contact Structure 1NO  
 Operation type Momentary  
 Housing Material  $\odot$  N: Nickel plated brass / S: Stainless steel  
 Wiring type Wiring patch (2 x 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories M12-16H



Sealing cover  
M12-16F



Sealing cover  
M12-16H

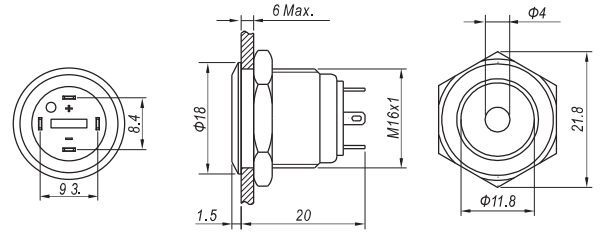


Panel plug  
M01

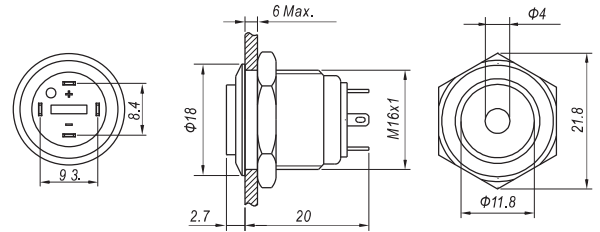




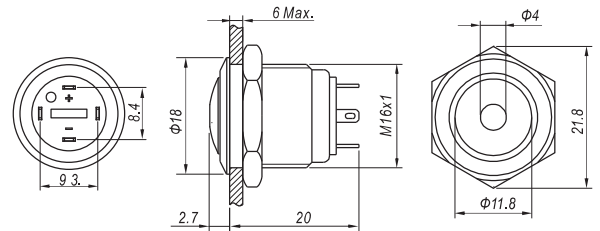
Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2×0.5mm)  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16F



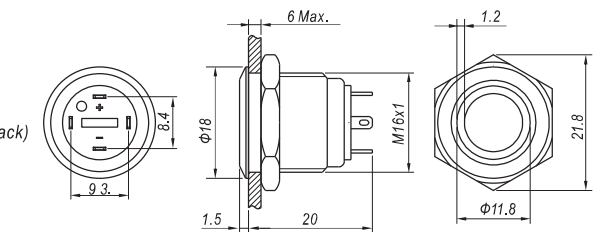
Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2×0.5mm)  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



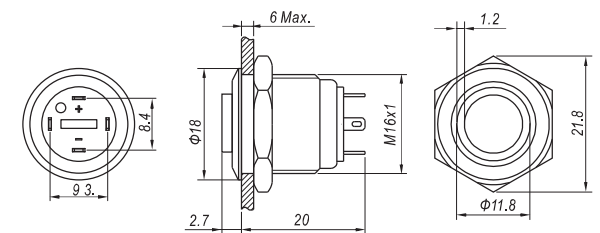
Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2×0.5mm)  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



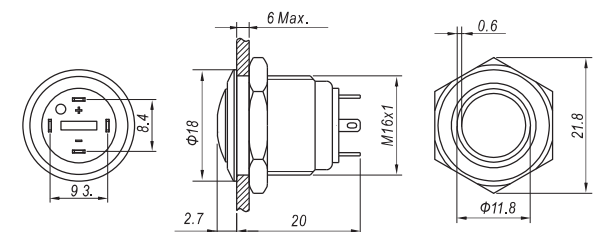
Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ◎ S: Stainless steel / A: Aluminium alloy (Black)  
 Wiring type Wiring patch(2×0.5mm)  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16F



Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2×0.5mm)  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



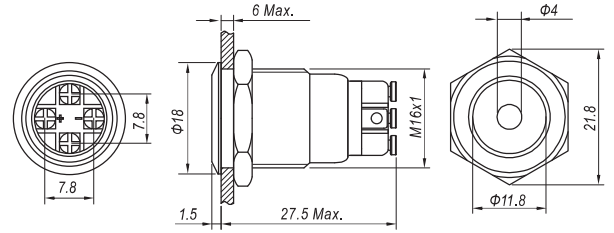
Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2×0.5mm)  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H





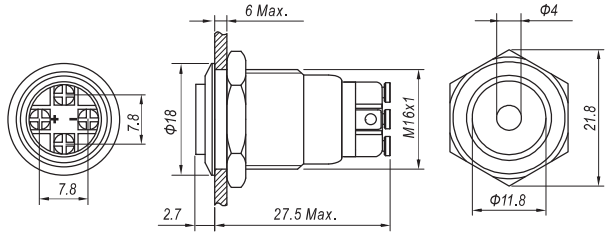
GQ16F-10D/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16F



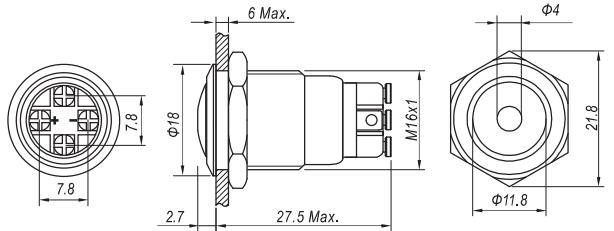
GQ16H-10D/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



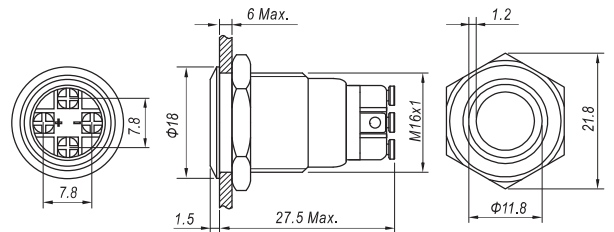
GQ16B-10D/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



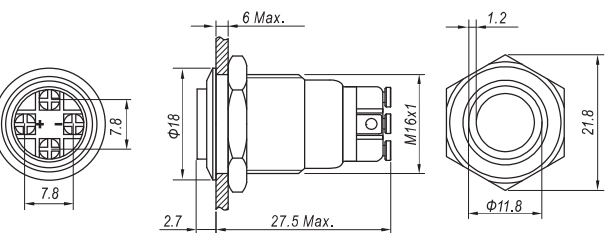
GQ16F-10E/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16F



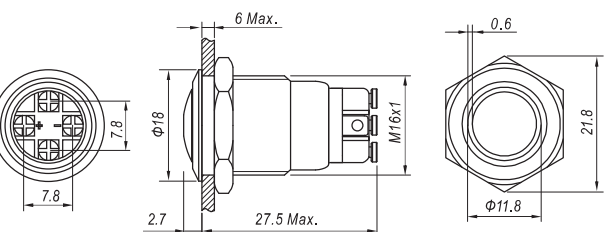
GQ16H-10E/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



GQ16B-10E/△/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color△ R G Y B W  
 Voltage▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65(IP67 can be customized), IK08  
 Applicable accessories M12-16H



Sealing cover  
M12-16F



Sealing cover  
M12-16H

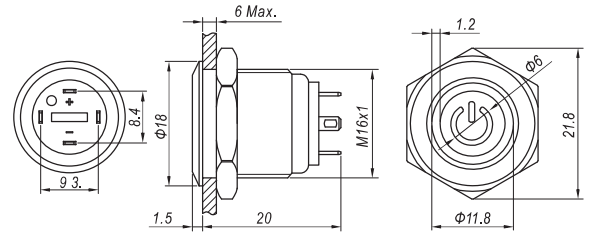


Panel plug  
M01



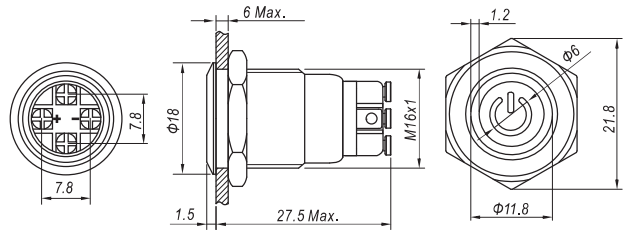
GQ16F-10ET/J/Δ/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch (2×0.5mm)  
 Protection class IP65 (IP67 can be customized), IK08  
 Applicable accessories M12-16F



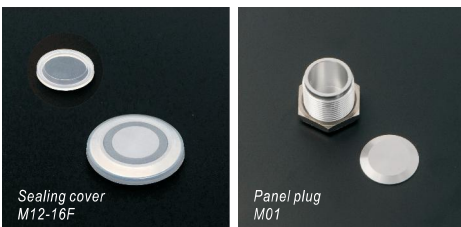
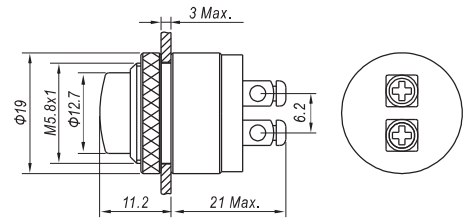
GQ16F-10ET/Δ/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65 (IP67 can be customized), IK08  
 Applicable accessories M12-16F



GQ16M-10

Switch rating 0.2A / 24V  
 Contact Structure 1NO  
 Operation type Momentary  
 Housing Material brass  
 Wiring type Terminals  
 Protection class IP65, IK08



Sealing cover  
M12-16F

Panel plug  
M01





## GQ16-K Series

- ☆ the installation aperture is  $\Phi 16\text{mm}$ ;
- ☆ the switch is "quick action | SPDT";
- ☆ this series is as rich in configuration selection as GQ16 (refer to the details page for details), while GQ16-K is 1NO1NC(GQ16 is 1NO) in switch combination, and a self-locking structure is added for users to choose;
- ☆ the waterproof grade of the product is IP40 / IP65.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	0.5A/220V
Mechanical Life	500,000 cycles
Electrical Life	50,000 cycles
Base material	PA
Nut torque	About 0.6Nm
Torque	About 1.7N
Operation Travel	About 3mm
Protection class	IP40(IP65 can be customized), IK08

### Switch structure description

Type	Diagram	Symbol
C		

### Switch Rating

Rated Insulation Voltage $U_i$		250V				
Thermal Current $I_{th}$		3A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	-	-	1A	0.5A
		Inductive load	-	-	0.7A	0.5A
	DC	Resistive load	1A	1A	0.2A	-
		Inductive load	0.7A	0.7A	0.1A	-
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)  
Application scope depends on operating environment and load type.

### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017		20201201000016
EN61058-1:2018		UDEM/M.2021.206.C62197

### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA $\geq 110\text{V}$ about 2mA	DC: $\pm 10\%$	 <small>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</small>

GQ16-K series model description

GQ16-K★-□■◇/J/△/▲/○

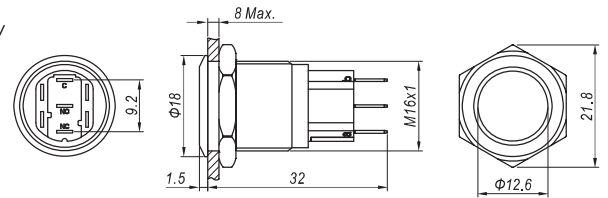
Symbol	Symbol name	Specify
★	Head shape	F: Flat round / H: High round
□	Contact Structure	11: 1NO1NC / No digital means indicator
■	Operation type	Z: Latching / No letter means momentary
◇	Illuminated Type	D: ●Dot illuminated / E: ○Ring illuminated / ET: ⊕Ring+power symbol illuminated / No letters mean no lights
J	Wiring type	J:Wiring patch
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V All have built-in resistors, other voltage levels can be customized.
○	Housing Material	C: Brass chrome plating / S: Stainless steel / A: Aluminium alloy (Black)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.



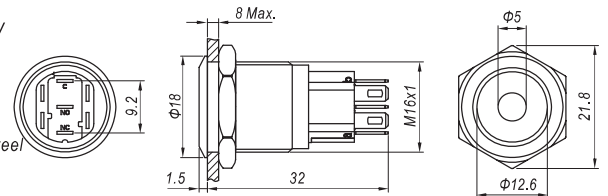
GQ16-KF-11■/J/○

Contact Structure 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Wiring type Wiring patch(2×0.5mm)  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP40(IP65 can be customized),IK08  
 Applicable accessories M12-16F



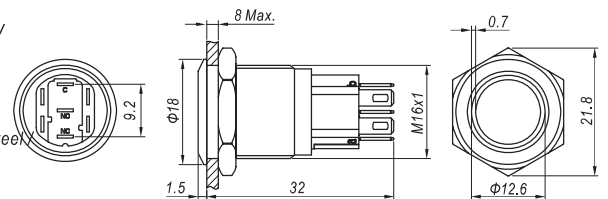
GQ16-KF-11■D/J/△/▲/○

Contact Structure 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Wiring type Wiring patch(2×0.5mm)  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel  
 Protection class IP40(IP65 can be customized),IK08  
 Applicable accessories M12-16F



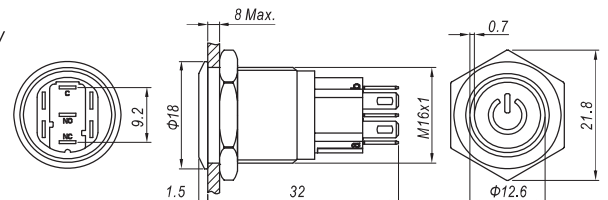
GQ16-KF-11■E/J/△/▲/○

Contact Structure 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Wiring type Wiring patch(2×0.5mm)  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ○ C: Brass chrome plating / S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP40(IP65 can be customized),IK08  
 Applicable accessories M12-16F



GQ16-KF-11■ET/J/△/▲/S

Contact Structure 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Wiring type Wiring patch(2×0.5mm)  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material S: Stainless steel  
 Protection class IP40(IP65 can be customized),IK08  
 Applicable accessories M12-16F

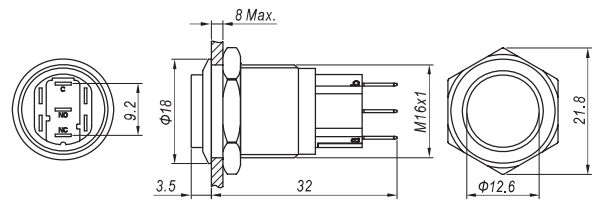


Sealing cover  
M12-16F

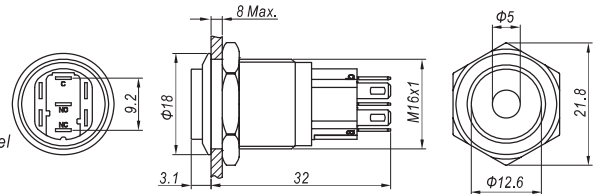
Panel plug  
M01



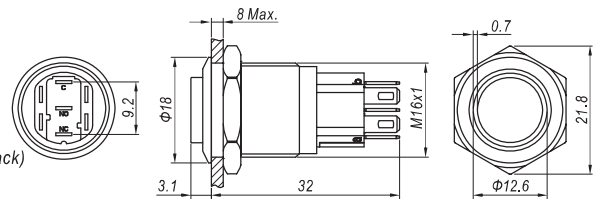
**Contact Structure** 1NO1NC  
**Operation type** ■ Z: Latching / No letter means momentary  
**Wiring type** Wiring patch (2 × 0.5mm)  
**Housing Material** ○ C: Brass chrome plating / S: Stainless steel / A: Aluminium alloy (Black)  
**Protection class** IP40 (IP65 can be customized), IK08  
**Applicable accessories** M12-16H



**Contact Structure** 1NO1NC  
**Operation type** ■ Z: Latching / No letter means momentary  
**Wiring type** Wiring patch (2 × 0.5mm)  
**Color** △ R G Y B W  
**Voltage** ▲ 6V / 12V / 24V / 110V / 220V  
**Housing Material** ○ C: Brass chrome plating / S: Stainless steel  
**Protection class** IP40 (IP65 can be customized), IK08  
**Applicable accessories** M12-16H



**Contact Structure** 1NO1NC  
**Operation type** ■ Z: Latching / No letter means momentary  
**Wiring type** Wiring patch (2 × 0.5mm)  
**Color** △ R G Y B W  
**Voltage** ▲ 6V / 12V / 24V / 110V / 220V  
**Housing Material** ○ C: Brass chrome plating / S: Stainless steel / A: Aluminium alloy (Black)  
**Protection class** IP40 (IP65 can be customized), IK08  
**Applicable accessories** M12-16H





## LAS2GQ Series

- ☆ The installation aperture is  $\Phi 16\text{mm}$ ;
- ☆ The switch is "Snap Action | SPDT / DPDT";
- ☆ This series is as rich in configuration options as GQ16 (refer to the details page for details), and in switch combination, LAS2GQ is 1NO1NC / 2NO2NC (GQ16 is 1NO), and a self-locking structure is added for users to choose;
- ☆ Product waterproof grade IP40 / IP67.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	0.5A/220V
Mechanical Life	200,000 cycles
Electrical Life	50,000 cycles
Base material	PA
Nut torque	About 0.6Nm
Torque	Self-recovery: about 1.2~1.8N, self-locking: about 2.3~2.8N (1NO1NC)
	Self-recovery: about 1.4~2N, self-locking: about 2.5~3N (2NO2NC)
Operation Travel	About 2.8mm
Protection class	IP40(IP67 can be customized), IK09

### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA $\geq 110\text{V}$ about 2mA	DC: $\pm 10\%$	<p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>

### Switch Rating

Rated Insulation Voltage $U_i$		250V				
Thermal Current $I_{th}$		3A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	-	-	1A	0.5A
		Inductive load	-	-	0.7A	0.5A
	DC	Resistive load	1A	1A	0.2A	-
		Inductive load	0.7A	0.7A	0.1A	-
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)

Application scope depends on operating environment and load type.

### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017		2020970305003362
EN61058-1:2018		UDEM/M.2021.206.C62197

### Switch structure description

Type	Diagram	Symbol
C		

### Pin Description

Up to two sets of switches can be configured. C1, NO1, NC1 and C2, NO2, NC2 are a group of switches respectively; C pin is a common pin, NO pin is a normally open pin, and NC pin is a normally closed pin; + and - pins are lamp bead pins, conventional lamp beads. There is no distinction between positive and negative poles in the configuration; the lamp bead is relatively independent from the switch, and the state of the lamp bead can be controlled through the switch or peripheral circuit.



LAS2GQ series model description

LAS2GQ★-□■◇/△▲/◎/☆

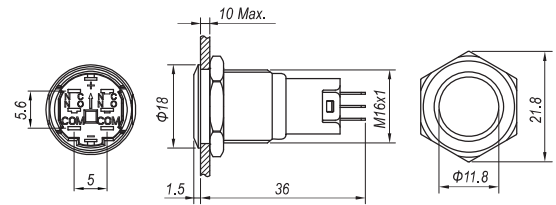
Symbol	Symbol name	Specify
★	Head shape	F: Flat round / H: High round / C: concave round / G: high concave round
□	Contact Structure	11: 1NO1NC / 22: 2NO2NC / No digital means indicator
■	Operation type	Z: Latching / No letter means momentary
◇	Illuminated Type	D: ● Dot illuminated / E: ○ Ring illuminated / DT: ◎ Single Power Symbol / ET: ◎ Ring+power symbol illuminated / No letters mean no lights
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V other voltage levels can be customized.
◎	Housing Material	N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)
☆	Protection class	FP:IP67 / No letter represents IP40

Note: Please read the catalog carefully, and choose the right part-number according to the sign.



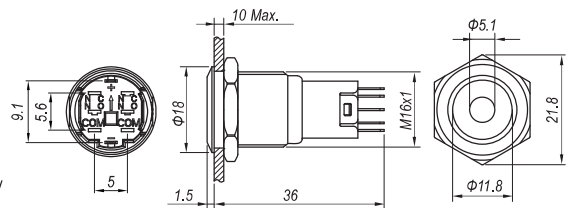
LAS2GQF-□■/◎/☆

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material ◎ N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class ☆ FP:IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16F / Solder socket M20 / PCB socket M20-A



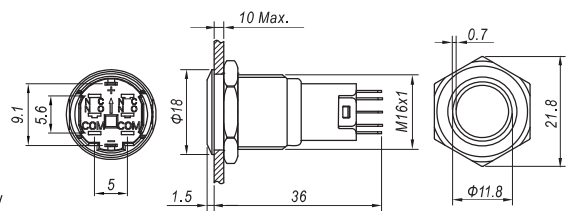
LAS2GQF-□■D/△/▲/◎/☆

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ◎ N: Nickel plated Brass / S: Stainless steel  
 Protection class ☆ FP:IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16F / Solder socket M20 / PCB socket M20-A



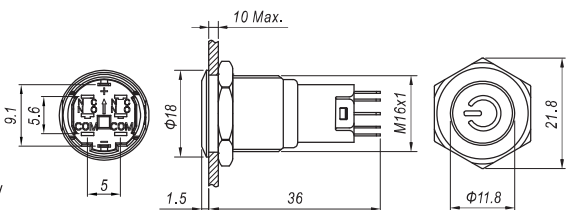
LAS2GQF-□■E/△/▲/◎/☆

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ◎ N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class ☆ FP:IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16F / Solder socket M20 / PCB socket M20-A



LAS2GQF-□■DT/△/▲/◎/☆

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ◎ N: Nickel plated Brass / S: Stainless steel  
 Protection class ☆ FP:IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16F / Solder socket M20 / PCB socket M20-A



Solder socket M20



Circuit board socket M20-A



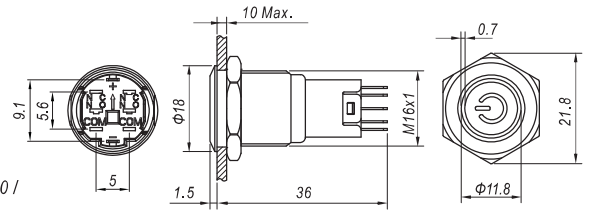
Sealing cover M12-16F



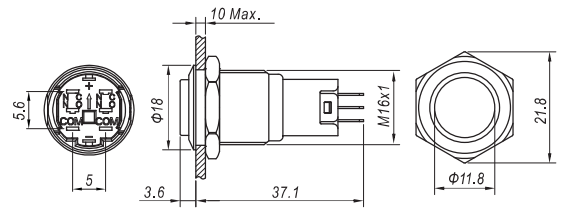
Panel plug M01



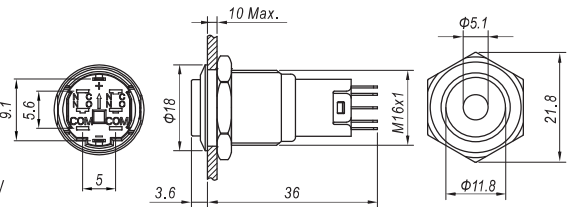
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ○ N: Nickel plated Brass / S: Stainless steel  
 Protection class ☆ FP: IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16F / Solder socket M20 / PCB socket M20-A



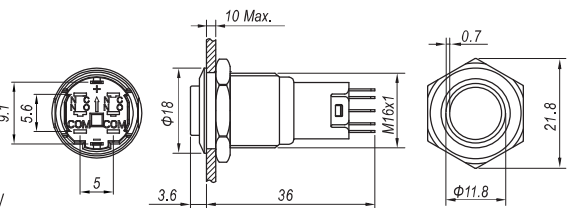
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material ○ N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class ☆ FP: IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16H / Solder socket M20 / PCB socket M20-A



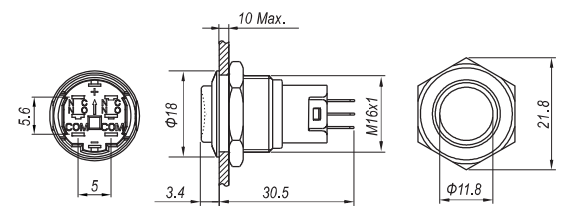
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ○ N: Nickel plated Brass / S: Stainless steel  
 Protection class ☆ FP: IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16H / Solder socket M20 / PCB socket M20-A



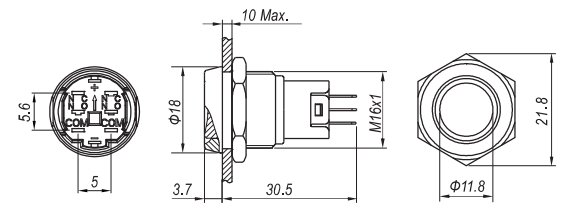
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material ○ N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class ☆ FP: IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16H / Solder socket M20 / PCB socket M20-A



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Housing Material Stainless steel  
 Protection class ☆ FP: IP67 / No letter represents IP40  
 Applicable accessories Safety mask M12-16H / Solder socket M20 / PCB socket M20-A



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material Stainless steel  
 Protection class ☆ FP: IP67 / No letter represents IP40  
 Applicable accessories Solder socket M20 / PCB socket M20-A



# LAS1-AGQ Series

- ☆ Installation aperture  $\Phi 16\text{mm}$ ,  $\Phi 19\text{mm}$ ,  $\Phi 22\text{mm}$ ;
- ☆ The switch is "Snap Action | SPDT / DPDT";
- ☆ This series covers buttons, emergency stop buttons, knobs, and key buttons.  
The product range is complete and the configuration options are rich, which can meet the needs of users in various fields. The market is widely used and is one of the company's flagship products;
- ☆ Product waterproof grade IP65/IP67.



### Switch Rating

Rated Insulation Voltage $U_i$		250V				
Thermal Current $I_{th}$		5A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	-	-	1A	0.5A
		Inductive load	-	-	0.7A	0.5A
	DC	Resistive load	1A	1A	0.2A	-
		Inductive load	0.7A	0.7A	0.1A	-
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)  
Application scope depends on operating environment and load type.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Mechanical Life	Button $\geq 1,000,000$ times, knob, key button $\geq 200,000$ times
Electrical Life	50,000 cycles
Key material	Stainless Steel / Aluminum Alloy (Black) / Brass Chrome Plated (Only for LAS1-AGQ16)
Base material	PBT(LAS1-AGQ16 is PA)
Nut torque	About 0.6Nm
Torque	Button: about 1.5N (1NO1NC), about 3N (2NO2NC)
Operation Travel	About 3.1mm
Protection class	Button: IP65(IP67 can be customized), IK09
	Knob, push-lock knob: IP65, IK02 key button: IP40, IK02

### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
UL508		UL / E254053
EN 60947-5-1:2004		VDE / 40050498
GB/T14048.5-2017		2020970305003363
EN 60947-5-1:2004		UDEM / RBT210131203ER-1

### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA $\geq 110\text{V}$ about 2mA	DC: $\pm 10\%$	<p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>

### Switch structure description

Type	Diagram	Symbol
C		

### Pin Description

Legend	Directions
	<p>Up to two sets of switches can be configured. C1, NO1, NC1 and C2, NO2, NC2 are a group of switches respectively; C pin is a common pin, NO pin is a normally open pin, and NC pin is a normally closed pin; + and - pins are lamp bead pins, conventional lamp beads There is no distinction between positive and negative poles in the configuration; the lamp bead is relatively independent from the switch, and the state of the lamp bead can be controlled through the switch or peripheral circuit.</p>



**LAS1-AGQ series model description**

LAS1-AGQ ☆ ★ ◻ ◼ ◊ / ● / △ / ▲ / ◎

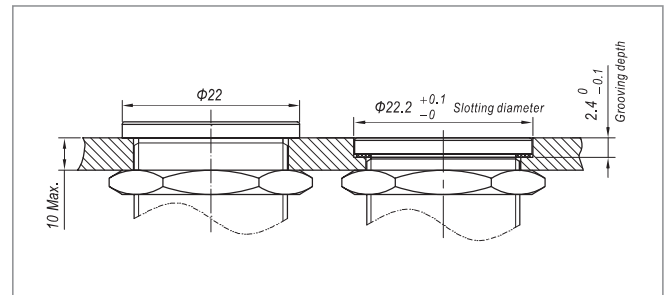
Symbol	Symbol name	Specify
☆	Mounting Aperture	16:Φ16mm / 22:Φ22mm / 30:Φ30mm / No digital means Φ19mm
★	Head shape	H: High round / No letter means flat round
◻	Contact Structure	11: 1NO1NC / 22: 2NO2NC / No digital means indicator
◼	Operation type	Z: Latching / X: Selector button / Y: Key button / TS: Emergency stop button / TSB: Type B emergency stop button / TSC: Type C emergency stop button / TSD: D-type emergency stop button / No letter means momentary
◊	Illuminated Type	D: ● Dot illuminated / E: ○ Ring illuminated / DT: ◎ Single Power Symbol / ET: ◎ Ring+power symbol illuminated / No letters mean no lights
◆	Selector and key button operating positions	2: Second position / 3: Third position
●	Selector and key button action types	1: Retention / 3: Fully Self-Double
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V other voltage levels can be customized.
◎	Housing Material	S: Stainless steel / A: Aluminium alloy (Black) / C: Chrome plated brass (optional for LAS1-AGQ16 only)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

**Ultra-flat custom head display**



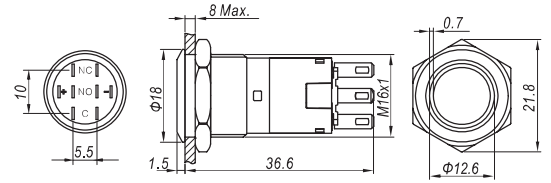
**LAS1-AGQ ultra-flat anti-destructive metal button installation method**



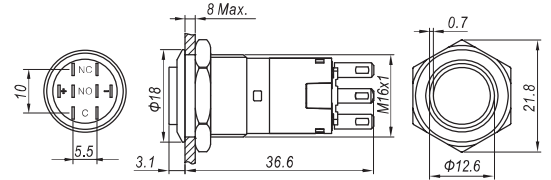




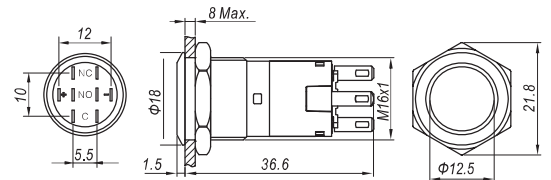
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material ○ S: Stainless steel /C: Chrome plated brass  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16F / Solder socket S04 / PCB socket S05



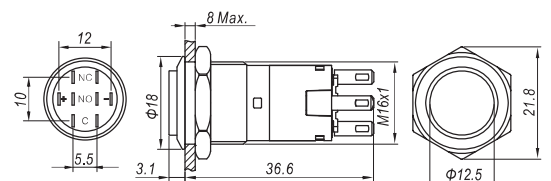
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material ○ S: Stainless steel /C: Chrome plated brass  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16H / Solder socket S04 / PCB socket S05



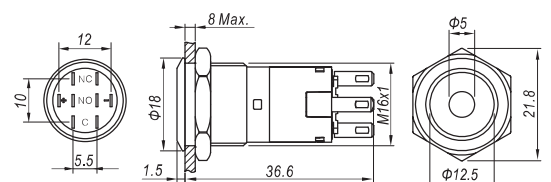
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel /C: Chrome plated brass  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16F / Solder socket S04 / PCB socket S05



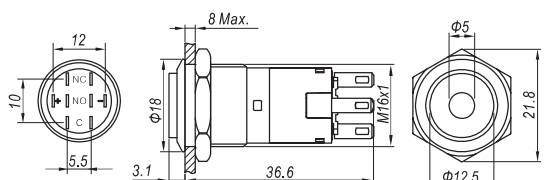
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel /C: Chrome plated brass  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16H / Solder socket S04 / PCB socket S05



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel /C: Chrome plated brass  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16F / Solder socket S04 / PCB socket S05

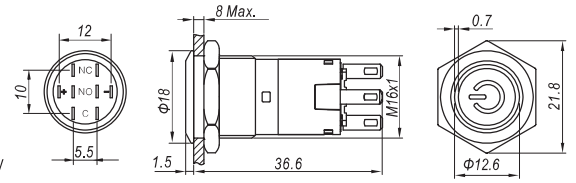


Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel /C: Chrome plated brass  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16H / Solder socket S04 / PCB socket S05

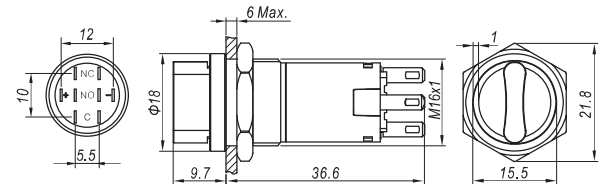




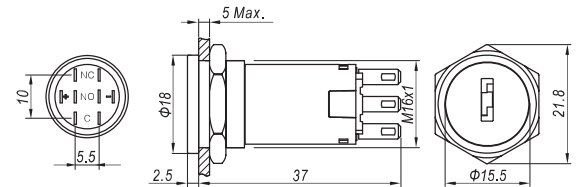
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material Stainless steel  
 Protection class IP40(IP65 can be customized),IK09  
 Applicable accessories Safety mask M12-16F / Solder socket S04 / PCB socket S05



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operating position ◆ ● L R L C R  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material Stainless steel  
 Protection class IP40,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05



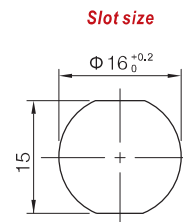
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operating position ◆ ● L R L C R  
 Housing Material Stainless steel  
 Protection class IP40,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05



Knob, key button working position contact status	Switch type	90° 2 position		45° 3 position	
	Action position	1NO1NC	2NO2NC	2NO2NC	
↻		NO C1	NO C1	NO C1	NC C1
↑		NC C1	NO C1	NO C1	NC C1
↻		NO C1	NO C1	NO C1	NC C1

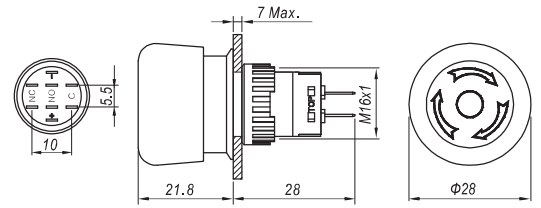
Precautions

- The key button comes with 2 keys as standard.
- The knob and key button must be rotated in place when using.
- During the use of the knob and key button, the product is likely to rotate. It is recommended that the user refer to the figure on the right to make the groove.

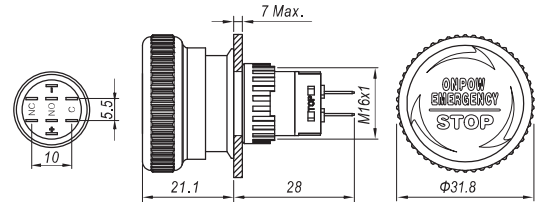




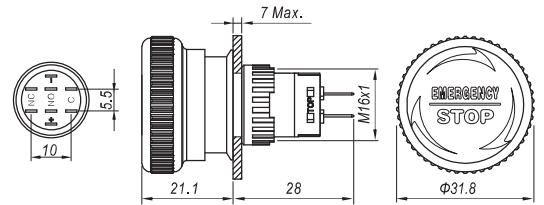
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP40(IP65 can be customized), IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / safety mask T34-16



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP40(IP65 can be customized), IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / safety mask T34-16



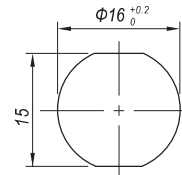
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP40(IP65 can be customized), IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / safety mask T34-16



Precautions

- When tightening the fixing nut on the installation panel, do not use the red head to fix it, otherwise the head structure of the product will be damaged.
- During the use of the push-lock and release button, the product is likely to rotate. It is recommended that the user refer to the figure on the right to make the groove.
- If necessary, the user can choose whether to reinforce the head of the product, please consult the sales staff for details.

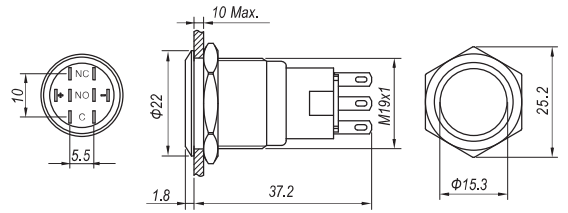
Slot size



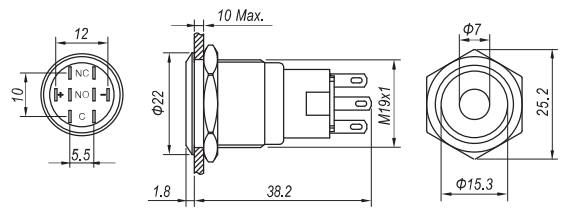




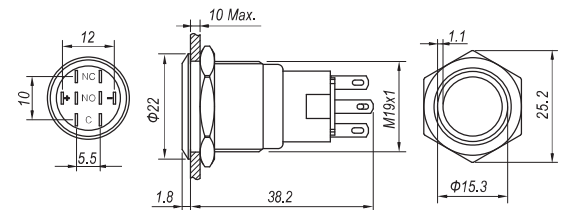
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material ○ S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP65 (IP67 can be customized), IK09  
 Applicable accessories Safety mask M12-19F / Solder socket S04 / PCB socket S05 / safety mask T21-19



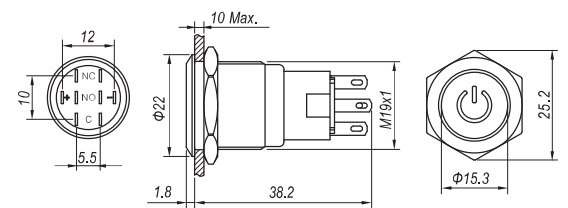
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color ▲ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP65 (IP67 can be customized), IK09  
 Applicable accessories Safety mask M12-19F / Solder socket S04 / PCB socket S05 / safety mask T21-19



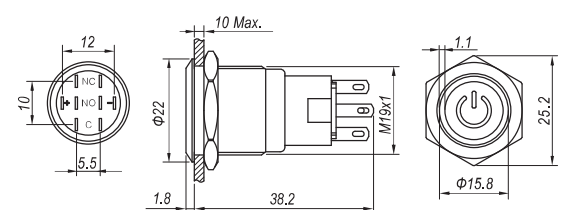
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color ▲ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP65 (IP67 can be customized), IK09  
 Applicable accessories Safety mask M12-19F / Solder socket S04 / PCB socket S05 / safety mask T21-19



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color ▲ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65 (IP67 can be customized), IK09  
 Applicable accessories Safety mask M12-19F / Solder socket S04 / PCB socket S05 / safety mask T21-19



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color ▲ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65 (IP67 can be customized), IK09  
 Applicable accessories Safety mask M12-19F / Solder socket S04 / PCB socket S05 / safety mask T21-19

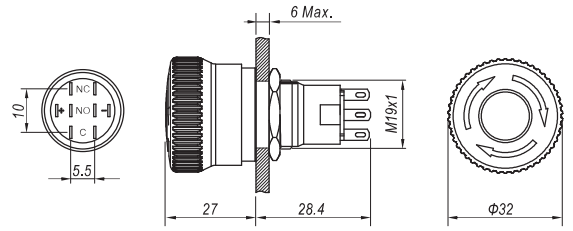






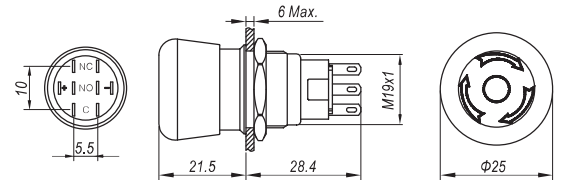
LAS1-AGQ-□TS

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05



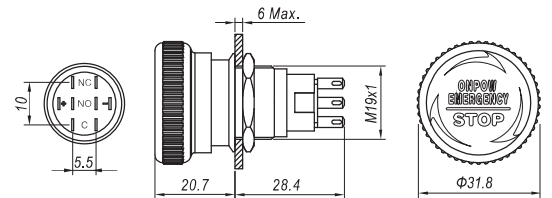
LAS1-AGQ-□TSB

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / safety mask T34-19



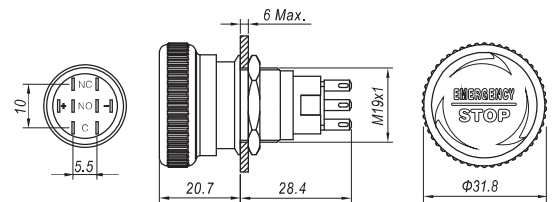
LAS1-AGQ-□TSC

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05



LAS1-AGQ-□TSD

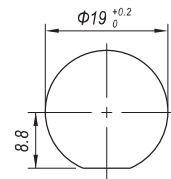
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05



Precautions

- When tightening the fixing nut on the installation panel, do not use the red head to fix it, otherwise the head structure of the product will be damaged.
- During the use of the push-lock and release button, the product is likely to rotate. It is recommended that the user refer to the figure on the right to make the groove.
- If necessary, the user can choose whether to reinforce the head of the product, please consult the sales staff for details.

Slot size



Solder socket S04



Circuit board socket S05



Safety mask T34-19

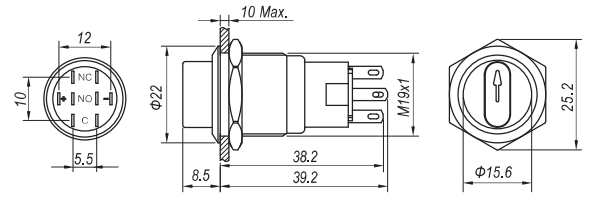


Panel plug M01



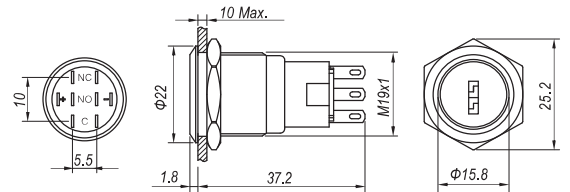
LAS1-AGQ-□X/◆/●/△/▲/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operating position ◆ ●  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ◎ Stainless steel  
 Protection class IP65,IK09  
 Applicable accessories Solder socket S04 / PCB socket S05



LAS1-AGQ-□Y/◆/●/S

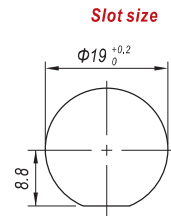
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operating position ◆ ●  
 Housing Material ◎ Stainless steel  
 Protection class IP65,IK09  
 Applicable accessories Solder socket S04 / PCB socket S05



Knob, key button working position contact status	Switch type Action position	90° 2 position		45° 3 position	
		1NO1NC	2NO2NC	2NO2NC	
↻		NO C1	NO C1	NC C1	NC C1
↑		NO C1	NO C1	NC C1	NC C1
↻		NO C1	NO C1	NC C1	NC C1

Precautions

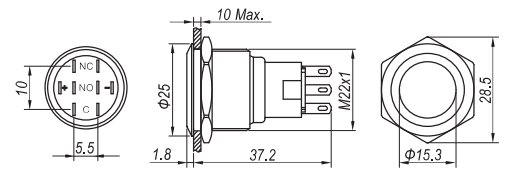
- The key button comes with 2 keys as standard.
- The knob and key button must be rotated in place when using.
- During the use of the knob and key button, the product is likely to rotate. It is recommended that the user refer to the figure on the right to make the groove.





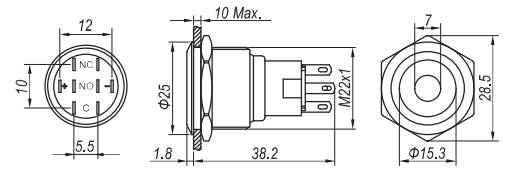
LAS1-AGQ22-□■/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(IP67 can be customized),IK09  
 Applicable accessories Safety mask M12-22F / Solder socket S04 / PCB socket S05 / safety mask T21-22



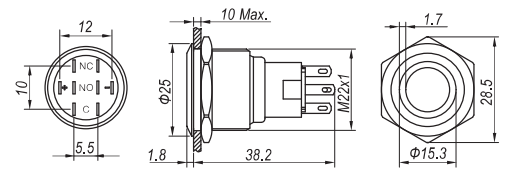
LAS1-AGQ22-□■D/△/▲/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(IP67 can be customized),IK09  
 Applicable accessories Safety mask M12-22F / Solder socket S04 / PCB socket S05 / safety mask T21-22



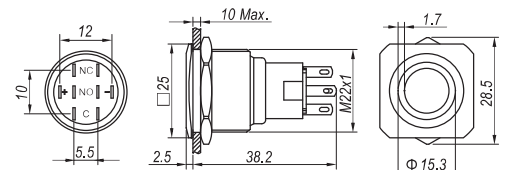
LAS1-AGQ22-□■E/△/▲/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(IP67 can be customized),IK09  
 Applicable accessories Safety mask M12-22F / Solder socket S04 / PCB socket S05 / safety mask T21-22



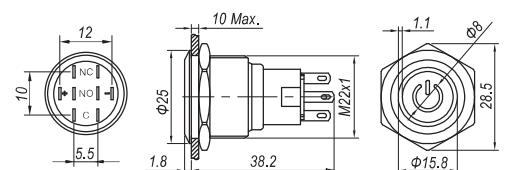
LAS1-AGQ22S-□■E/△/▲/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(IP67 can be customized),IK09  
 Applicable accessories Solder socket S04 / PCB socket S05



LAS1-AGQ22-□■E/△/▲/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(IP67 can be customized),IK09  
 Applicable accessories Safety mask M12-22F / Solder socket S04 / PCB socket S05 / safety mask T21-22



Sealing cover M12-22F



Solder socket S04



Circuit board socket S05



Safety mask T21-22

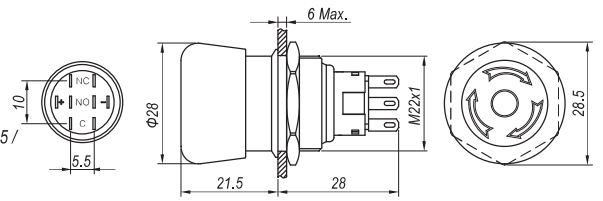


Panel plug M03



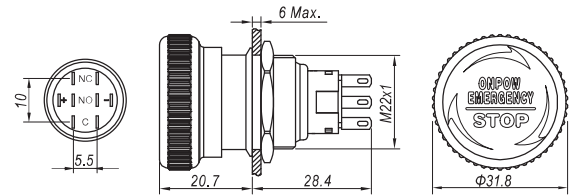
LAS1-AGQ22-□TSB

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / Safety mask T16



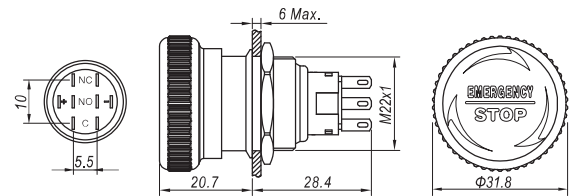
LAS1-AGQ22-□TSC

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / Safety mask T16



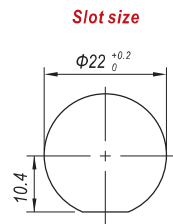
LAS1-AGQ22-□TSD

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Housing Material Aluminum alloy  
 Protection class IP65,IK02  
 Applicable accessories Solder socket S04 / PCB socket S05 / Safety mask T16



Precautions

- During the use of the push-lock and release button, the product is likely to rotate. It is recommended that the user refer to the figure on the right to make the groove.
- If necessary, the user can choose whether to reinforce the head of the product, please consult the sales staff for details.



Solder socket S04



Circuit board socket S05



Safety mask T16

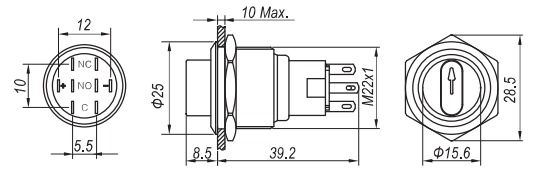


Panel plug M03

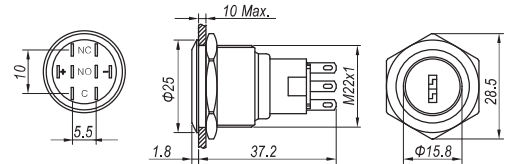




Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operating position ◆ ●   
 Color ▲   
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ◎ Stainless steel  
 Protection class IP65, IK09  
 Applicable accessories Solder socket S04 / PCB socket S05



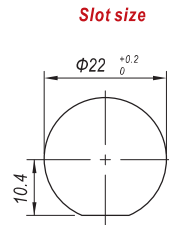
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operating position ◆ ●   
 Housing Material ◎ Stainless steel  
 Protection class IP40(IP65 can be customized), IK09  
 Applicable accessories Solder socket S04 / PCB socket S05



Switch type	Action position	90° 2 position		45° 3 position	
		1NO1NC	2NO2NC	2NO2NC	
Knob, key button working position contact status					

Precautions

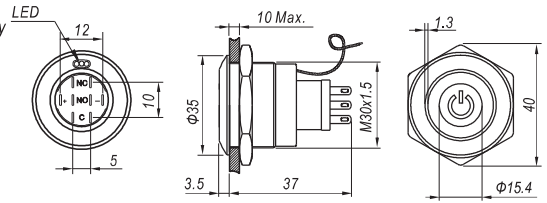
- The key button comes with 2 keys as standard.
- The knob and key button must be rotated in place when using.
- During the use of the knob and key button, the product is likely to rotate. It is recommended that the user refer to the figure on the right to make the groove.



Φ30mm Product drawing Specifications Overall dimensions



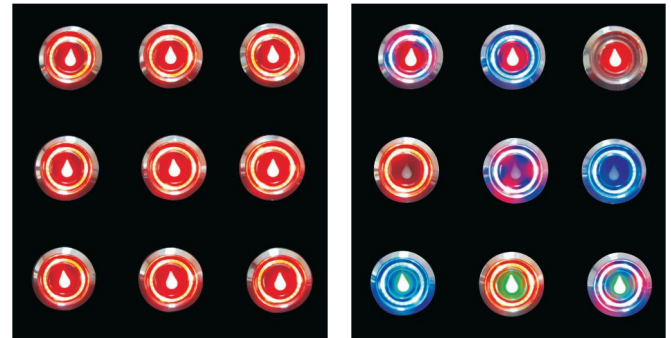
Contact Structure □ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R C Y B W  
 ▲ △: Ring color, ▲: Symbol color  
 Voltage ▲ 6V/12V/24V  
 Housing Material S: Stainless steel  
 Protection class IP65(IP67 can be customized),IK09  
 Applicable accessories Solder socket S04 / PCB socket S05



Description of GQ30 illuminated button luminous device

- Two color lights can be customized for the middle pattern part; You can also customize various luminous words and patterns.
- There are six light sources in the annular lamp section, which generally support up to two colors, pattern and annularFully independent with lamp, dual color with lamp can be realized with pattern with lamp, and between three states without lampTwo monochrome lamps can be realized by switching the annular band lamp, the dual color lamp is on at the same time, and the four lamps are not equippedSwitching between two states. Combination indicates multiple signal states, except for the switching of dual color strip lightsIn addition to two DC power supplies, switching of other states can be realized through one power supply.
- Built in protective resistor, no external connection is required.

Display of nine commonly used luminous effects



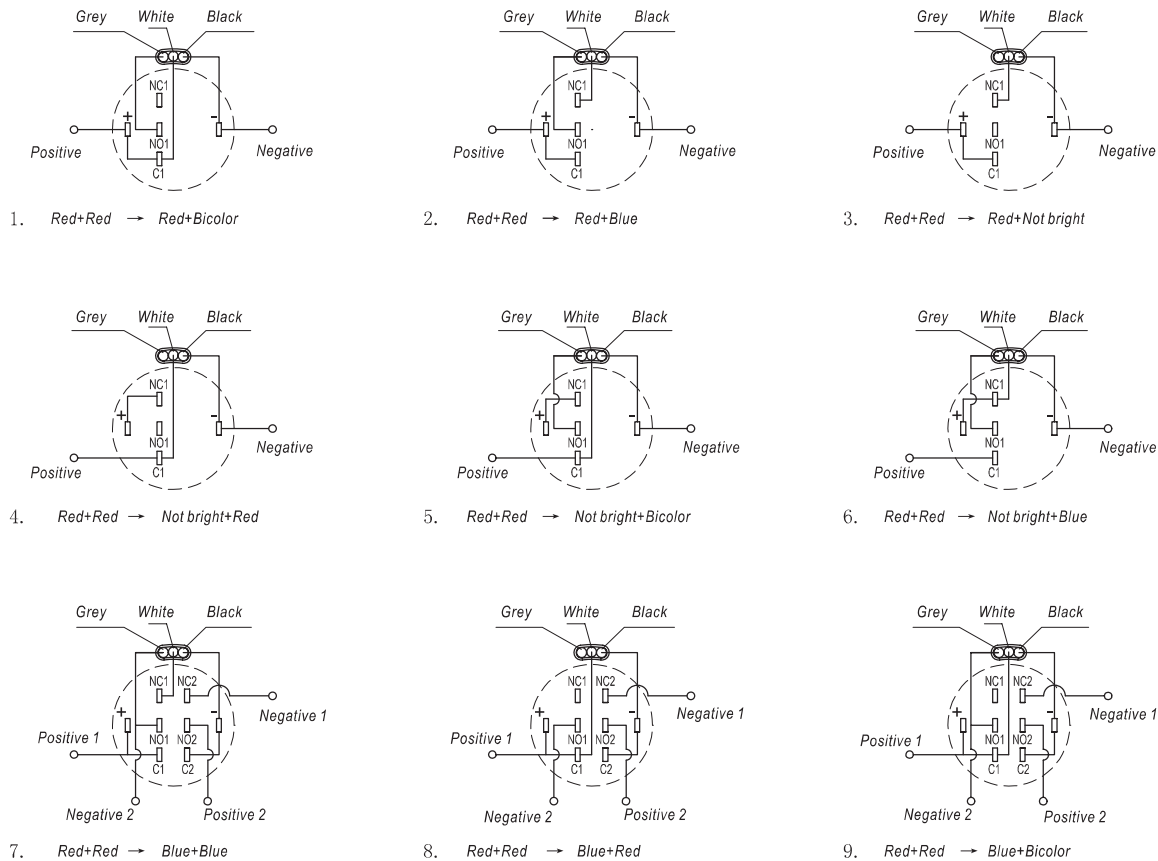
Effect before switching

Effect after switching

The wiring method is as follows



Common wiring methods in the display of luminous effects (the sequence is shown in the left figure from left to right, from top to bottom):



Note: 7 8 9 Two DC power supplies shall be provided for the switching of bicolor lights in three states and patterns.

Φ 30mm Product drawing

Specifications

Overall dimensions



Contact Structure □ 11: 1NO1NC / 22: 2NO2NC

Operating position ◆●

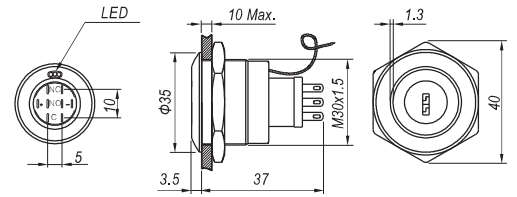
Color △ R G Y B W

Voltage ▲ 6V/12V/24V

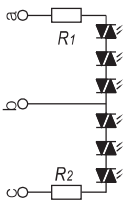
Housing Material ○ Stainless steel

Protection class IP40 (IP65 can be customized), IK09

Applicable accessories Solder socket S04 / PCB socket S05



Description of built-in luminous device



- Built in protective resistor, no external connection is required.
- Various color light emitting chips can be built in.
- It can achieve the indication form of multiple colors interlaced and lit at the same time, which is beautiful and unique.
- Multiple signal indications can be achieved through the direct or indirect control of the opening and closing states of various contacts of the key switch.



Knob, key button working position contact status	Switch type Action position	90° 2 position		45° 3 position	
		1NO1NC	2NO2NC	2NO2NC	
↻	↻	NO NC	NO NC Left contact Right contact	NO NC Left contact Right contact	NO NC Left contact Right contact
↑	↑			NO NC Left contact Right contact	NO NC Left contact Right contact
↻	↻	NO NC	NO NC Left contact Right contact	NO NC Left contact Right contact	NO NC Left contact Right contact



## GQ19 series

- ☆ The installation hole diameter is  $\Phi 19\text{mm}$ ;
- ☆ The switch is "self recovery | slow motion | single pole single throw";
- ☆ With rich product styles, compact size, economy and practicality, it has always been the preferred product for small panel users;
- ☆ The waterproof grade of the product is IP65.

### GQ19 series model description

GQ19★-□◇◆/△▲/◎

Symbol	Symbol name	Specify
★	Head shape	B: spherical / F: Flat round
□	Contact Structure	10: 1NO / No digital means indicator / Some products can be customized with 1NC
◇	Illuminated Type	D: ● Dot illuminated / E: ○ Ring illuminated / ET: ⊕ Ring+power symbol illuminated / No letters mean no lights
◆	Wiring type	J: Wiring patch / No letters means terminals
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V All have built-in resistors, other voltage levels can be customized.
◎	Housing Material	N: Nickel plated Brass / S: Stainless steel / A: Aluminium alloy (Black)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

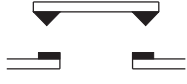



### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A/36VDC 1A/220V
Mechanical Life	1,000,000 cycles
Electrical Life	50,000 cycles
Base material	PBT
Nut torque	About 0.6Nm
Torque	About 4N
Operation Travel	About 1.8mm
Protection class	IP65,IK06

### Standards and certification

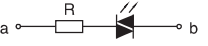
Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017	CCC	2020970305003361
EN61058-1:2018	CE	UDEM/M.2021.206.C62197

### Switch structure description

Type	Diagram	Symbol
X		
Y		

Description: Double break point slow contact switch with two terminals

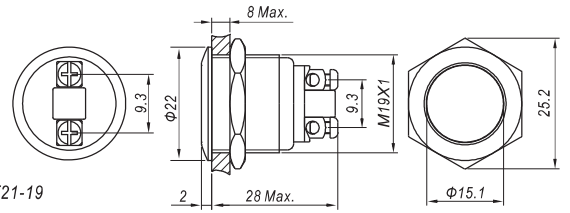
### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA $\geq 110\text{V}$ about 2mA	DC: $\pm 10\%$ AC: $\pm 20\%$	 The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.

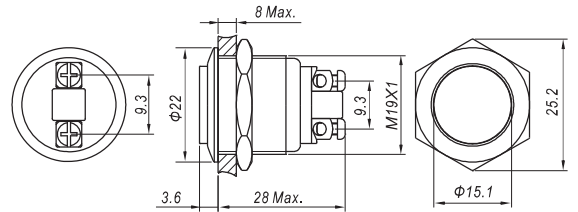




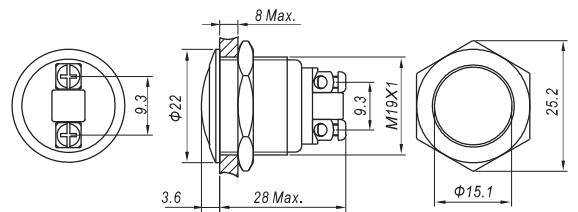
Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ☉ N: Nickel plated brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19F / protection cover T21-19



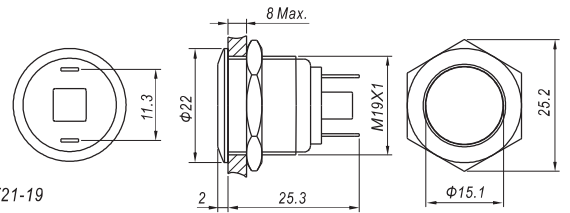
Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ☉ N: Nickel plated brass / S: Stainless steel  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19H



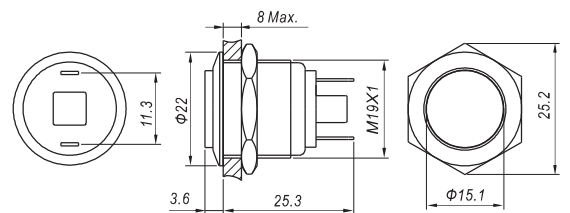
Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ☉ N: Nickel plated brass / S: Stainless steel  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19H



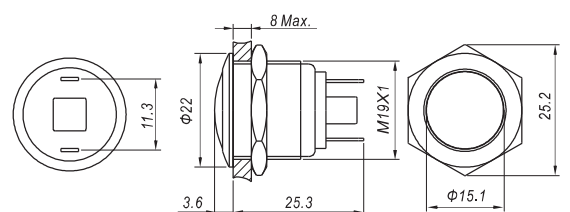
Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ☉ N: Nickel plated brass / S: Stainless steel / A: Aluminium alloy (Black)  
 Wiring type Wiring patch (2 × 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19F / protection cover T21-19



Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ☉ N: Nickel plated brass / S: Stainless steel  
 Wiring type Wiring patch (2 × 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19H



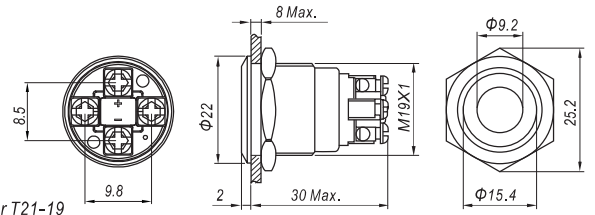
Contact Structure 1NO  
 Operation type Momentary  
 Housing Material ☉ N: Nickel plated brass / S: Stainless steel  
 Wiring type Wiring patch (2 × 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19H





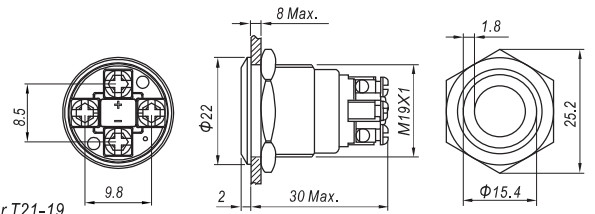
GQ19F-10D/Δ/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19F / protection cover T21-19



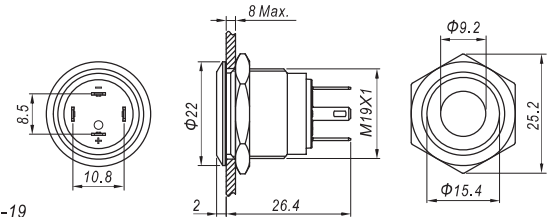
GQ19F-10E/Δ/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Terminals  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19F / protection cover T21-19



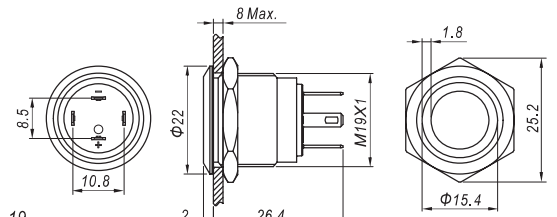
GQ19F-10D/J/Δ/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2.8 × 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19F / protection cover T21-19



GQ19F-10E/J/Δ/▲/S

Contact Structure 1NO  
 Operation type Momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V / 12V / 24V / 110V / 220V  
 Housing Material Stainless steel  
 Wiring type Wiring patch(2.8 × 0.5mm)  
 Protection class IP65, IK08  
 Applicable accessories Sealing cover M12-19F / protection cover T21-19



Sealing cover M12-19F



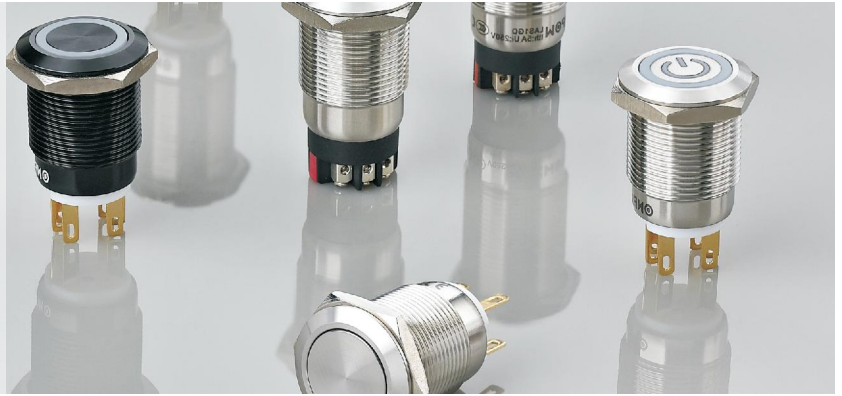
Protection cover T21-19



Panel plug M02

## LAS1GQ series

- ☆ The installation hole diameter is  $\Phi 19mm$ ;
- ☆ The switch is "quick action | single pole double throw";
- ☆ The rated value of this series of switches is up to 220VAC/5A, with stable performance and durability, which is the best choice for high current users;
- ☆ The waterproof grade of the product is IP65/IP67.



### LAS1GQ series model description

LAS1GQ☆-□■◇/◆/▲/◎

Symbol	Symbol name	Specify
☆	Head shape	H: High round / No letter means flat round
□	Contact Structure	11: 1NO1NC / No digital means indicator
■	Operation type	Z: Latching / No letter means momentary
◇	Illuminated Type	D: ●Dot illuminated / E: ○Ring illuminated / DT: ⊙Single Power Symbol / ET: ⊕Ring+power symbol illuminated / No letters mean no lights
◆	Wiring type	L: Terminal / No letter means the lug
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V other voltage levels can be customized.
◎	Housing Material	S: Stainless steel / A: Aluminium alloy (Black)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤ 50mΩ
Insulation Resistance	≥ 100MΩ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A/220VAC
Mechanical Life	1,000,000 cycles
Electrical Life	50,000 cycles
Base material	PC
Nut torque	About 0.8Nm
Torque	about 4N (IP65), about 5N (IP67)
Operation Travel	About 2.5mm
Protection class	IP65(IP67 can be customized), IK09

### Switch Rating

Rated Insulation Voltage $U_i$		250V
Thermal Current $I_{th}$		20A
Rated voltage		220V
Rated Operation Current	AC 50/60Hz	Resistive load 15A Inductive load 5A
	DC	Inductive load 2A
	Contact material Silver Alloy	

Minimum load: 3V AC/DC, 5mA (Reference)

Application scope depends on operating environment and load type.

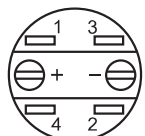
### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017	CCC	2020970305003363
EN61058-1:2018	CE	UDEM/M.2021.206.C62197

### Switch structure description


Type	Diagram	Symbol
Za		

### Pin Description



1. 2 is normally closed contact NC;  
3. 4 is normally open contact NO;  
The + and - pins are lamp bead pins, and there is no positive and negative pole distinction in conventional lamp bead configurations; The lamp bead is relatively independent from the switch, and the lamp bead state can be controlled through the switch or peripheral circuit.

### LED Specifications

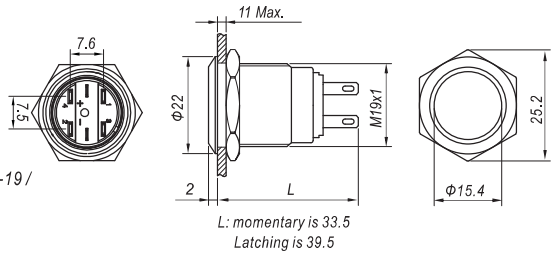
LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥ 40000 hours	≤ 24V about 15mA ≥ 110V about 2mA	DC: ± 10%	 <p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>





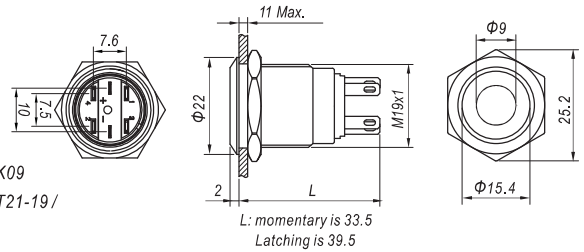
LAS1GQ-11 ■/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19 / Solder socket S21 / PCB socket S22



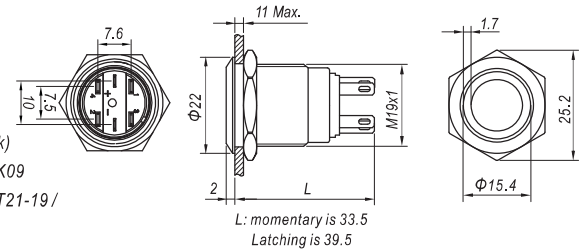
LAS1GQ-11 ■D/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19 / Solder socket S21 / PCB socket S22



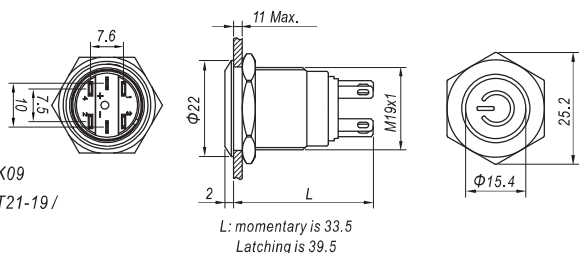
LAS1GQ-11 ■E/Δ/▲/○

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19 / Solder socket S21 / PCB socket S22



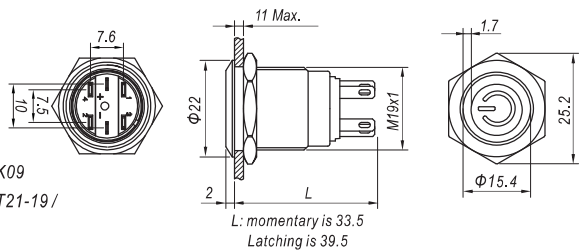
LAS1GQ-11 ■DT/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19 / Solder socket S21 / PCB socket S22



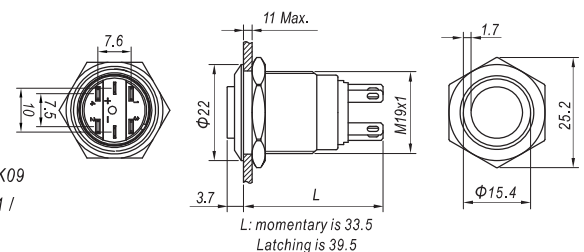
LAS1GQ-11 ■ET/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19 / Solder socket S21 / PCB socket S22



LAS1GQH-11 ■E/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19H / Solder socket S21 / PCB socket S22



Sealing cover M12-19F



Sealing cover M12-19H



Solder socket S21



Circuit board socket S22



Protection cover T21-19



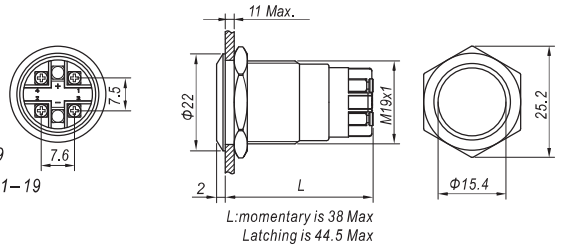
Panel plug M02





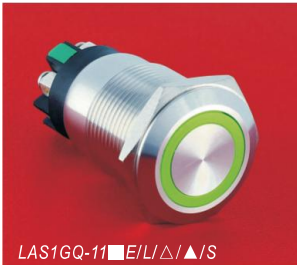
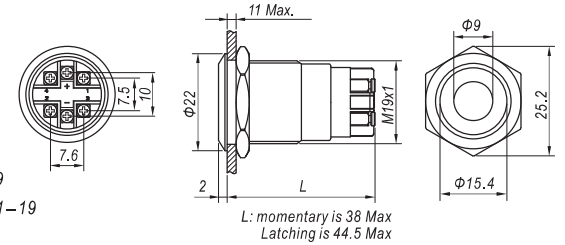
LAS1GQ-11 ■/L/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



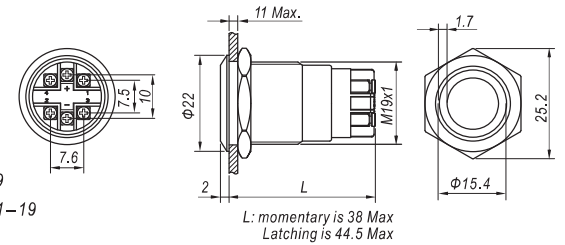
LAS1GQ-11 ■D/LI/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



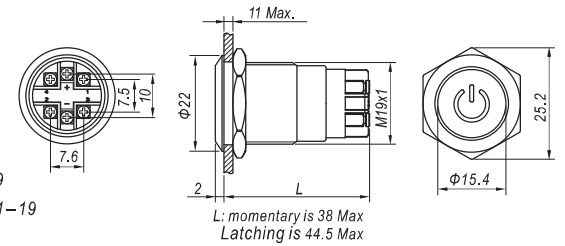
LAS1GQ-11 ■E/LI/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



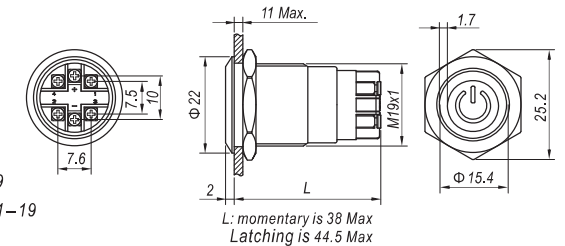
LAS1GQ-11 ■DT/LI/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



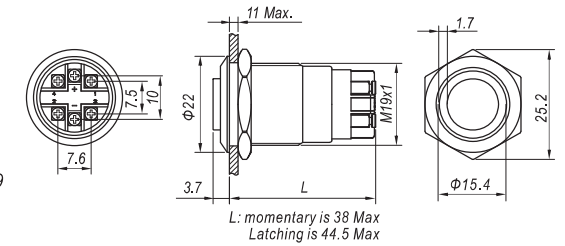
LAS1GQ-11 ■ET/LI/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



LAS1GQH-11 ■E/LI/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-19H



Sealing cover M12-19F



Sealing cover M12-19H



Protection cover T21-19



Panel plug M02

# LAS1-BGQ seires

- ☆ The installation hole diameter is  $\Phi 19\text{mm}$ ;
- ☆ The switch is "quick action | single pole double throw | double pole double throw | three pole double throw";
- ☆ The series covers buttons, emergency stop buttons, knobs, and key buttons, and each product can be configured with 1~3 switching elements to meet various needs of users;
- ☆ The waterproof grade of the product is IP40.



## LAS1-BGQ series model description

LAS1-BGQ-□■◇/◆●/△/▲/◎

Symbol	Symbol name	Specify
□	Contact Structure	11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC / No digital means indicator
■	Operation type	Z: Latching / X: Selector button / Y: Key button / TS: Emergency stop button / No letter means momentary
◇	Illuminated Type	D: ● Dot illuminated    E: ○ Ring illuminated    No letters mean no lights
◆	Selector and key button operating positions	2: Second position / 3: Third position
●	Selector and key button action types	1: Retention / 2: Semi self resetting (32 is right self resetting by default, and left self resetting can be customized) / 3: Fully Self-Double
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V other voltage levels can be customized.
◎	Housing Material	S: Stainless steel

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

## Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤50mΩ
Insulation Resistance	≥100MΩ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A/220VAC
Mechanical Life	1,000,000 cycles
Electrical Life	50,000 cycles
Base material	PA/PC
Nut torque	About 0.8Nm
Torque	About 2.5N(1NO1NC)
	About 3.5N(2NO2NC)
	About 4.5N(3NO3NC)
Operation Travel	About 3.1mm
Protection class	IP40, IK08

## LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥40000 hours	≤24V about 15mA ≥110V about 2mA	DC: ±10% AC: ±20%	<p>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</p>

## Switch Rating

Rated Insulation Voltage $U_i$		250V				
Thermal Current $I_{th}$		5A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	—	—	5A	3A
		Inductive load	—	—	3A	2A
	DC	Resistive load	5A	5A	1A	0.5A
		Inductive load	2A	2A	0.2A	0.1A
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)

Application scope depends on operating environment and load type.

## Standards and certification

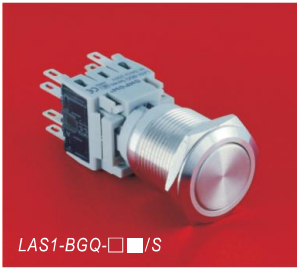
Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017		2020970305003713
EN61058-1:2018		UDEM/M.2021.206.C62197

## Switch structure description

Type	Diagram	Symbol
Za		

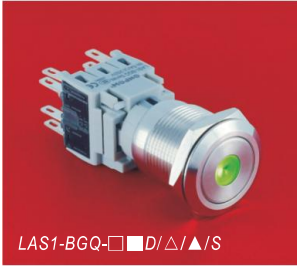
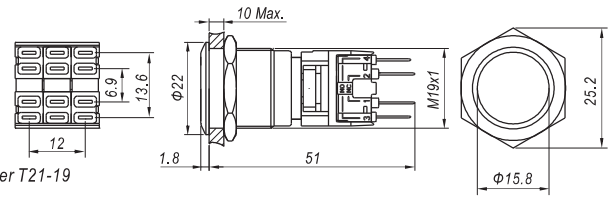
## Pin Description

1, 2, 3 and 4 are a group of switches;  
 1, 2 is normally closed contact NC,  
 3 and 4 are normally open contacts NO.  
 There is no difference between positive and negative poles for the lamp beads in the conventional configuration.  
 The lamp bead is relatively independent of the switch, and the lamp bead status can be controlled by the switch or peripheral circuit.



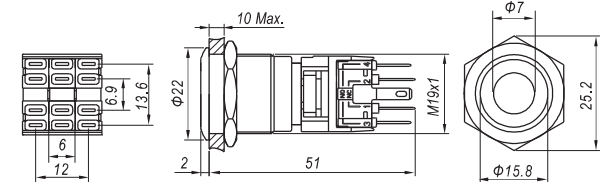
LAS1-BGQ-□■/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP40,IK08  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



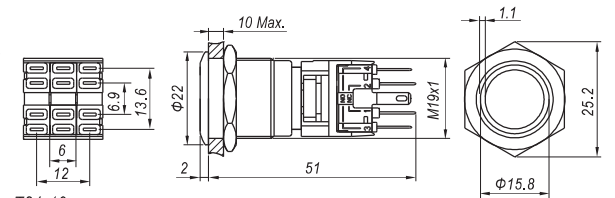
LAS1-BGQ-□■D/△/▲/S

Contact Structure 11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP40,IK08  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



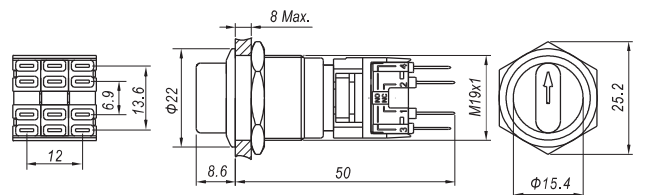
LAS1-BGQ-□■E/△/▲/S

Contact Structure 11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP40,IK08  
 Applicable accessories Sealing cover M12-19F / Protection cover T21-19



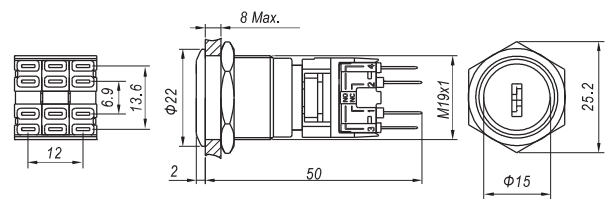
LAS1-BGQ-□X/◆●/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC  
 Operating position ◆● L R L C R  
 Housing Material Stainless steel  
 Protection class IP40,IK02  
 Applicable accessories Protection cover T34-19



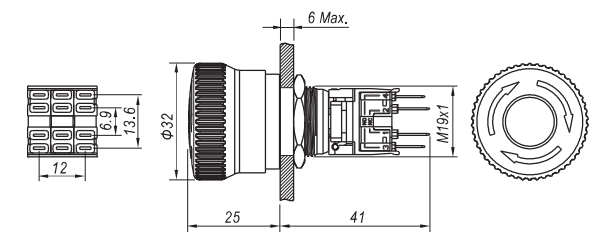
LAS1-BGQ-□Y/◆●/S

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC  
 Operating position ◆● L R L C R  
 Housing Material Stainless steel  
 Protection class IP40,IK02  
 Applicable accessories Protection cover T34-19



LAS1-BGQ-□TS

Contact Structure □ 11: 1NO1NC / 22: 2NO2NC / 33: 3NO3NC  
 Operation type Push lock rotary release type  
 Housing Material Aluminum alloy  
 Protection class IP40,IK02



Sealing cover M12-19F



Protection cover T34-19



Protection cover T21-19



Panel plug M02



## GQ★ series

- ☆ Have installation aperture  $\Phi$  22mm,  $\Phi$  25mm,  $\Phi$  28mm,  $\Phi$  30mm,  $\Phi$  40mm.
- ☆ The switch is "fast action | SPDT/DPDT";
- ☆ The appearance of the product is elegant and fashionable, the configuration is rich and diverse, and the performance is stable and reliable.  
The self-locking device of this series is of "gear bite" structure, and the self-locking performance is very reliable;
- ☆ The waterproof grade of the product is IP65/IP67.



### GQ★ series model description

GQ★-□■◇/△/▲/◎

Symbol	Symbol name	Specify
★	Mounting hole diameter	22: $\Phi$ 22mm / 25: $\Phi$ 25mm / 28: $\Phi$ 28mm / 30: $\Phi$ 30mm / 40: $\Phi$ 40mm
□	Contact Structure	11: 1NO1NC / 22: 2NO2NC / No digital means indicator
■	Operation type	Z: Latching / M: Mushroom button / No letter means momentary
◇	Illuminated Type	D: ● Dot illuminated / E: ○ Ring illuminated / ET: ◎ Ring+power symbol illuminated / No letters mean no lights
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V other voltage levels can be customized.
◎	Housing Material	S: Stainless steel / A: Aluminium alloy (Black)

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

### Switch Rating

Rated Insulation Voltage $U_i$		250V				
Thermal Current $I_{th}$		5A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	—	—	5A	3A
		Inductive load	—	—	3A	2A
	DC	Resistive load	5A	5A	1A	0.5A
		Inductive load	2A	2A	0.2A	0.1A
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)

Application scope depends on operating environment and load type.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	≤ 50m $\Omega$
Insulation Resistance	≥ 100M $\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A/220VAC
Mechanical Life	1,000,000 cycles
Electrical Life	50,000 cycles
Base material	PA
Nut torque	About 0.6Nm
Torque	About 4N(1NO1NC)
	About 7.5N(2NO2NC)
Operation Travel	About 2.5mm
Protection class	IP65(momentary IP67 can be customized),IK10

### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017	CCC	2020970305003358
GB/T 14048.5-2017	CCC	2020970305003358
EN61058-1:2018	CE	UDEM/M.2021.206.C62197

### Switch structure description

Type	Diagram	Symbol
Za		

### LED Specifications

LED life	Current	Allowable voltage fluctuation range	Circuit diagram
≥ 40000 hours	≤ 24V about 15mA ≥ 110V about 2mA	DC: ± 10% AC: ± 20%	 <small>The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.</small>

### Pin Description

**GQ22**

LED pin      LED pin

**GQ25, GQ28, GQ30**

LED pin      LED pin

1, 2, 3 and 4 are a group of switches; 1, 2 is normally closed contact NC, 3 and 4 are normally open contact NO.  
There is no difference between positive and negative poles for the lamp beads in the conventional configuration. The lamp bead is relatively independent of the switch, and the lamp bead status can be controlled by the switch or peripheral circuit.

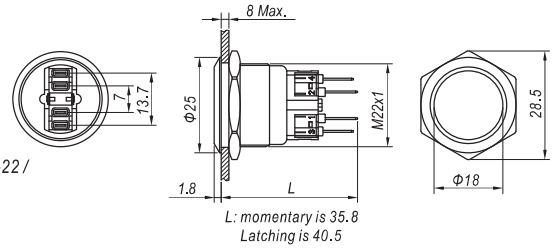


Super flat head can be customized



GQ22-11■/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket M11 / PCB socket M11-A / Quick connect socket M22

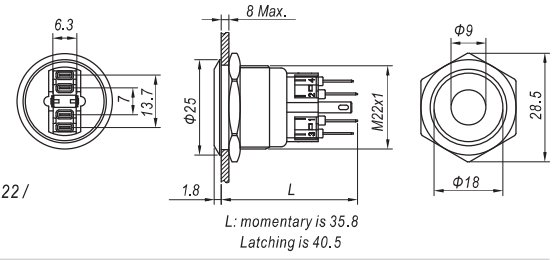


Super flat head can be customized



GQ22-11■D/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket M11 / PCB socket M11-A / Quick connect socket M22

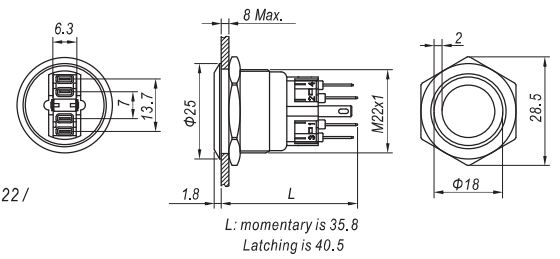


Super flat head can be customized



GQ22-11■E/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material ○ S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket M11 / PCB socket M11-A / Quick connect socket M22

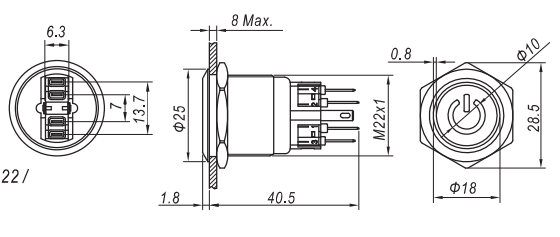


Super flat head can be customized

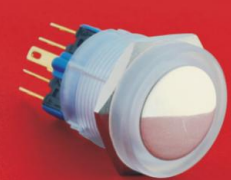


GQ22-11■ET/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket M11 / PCB socket M11-A / Quick connect socket M22

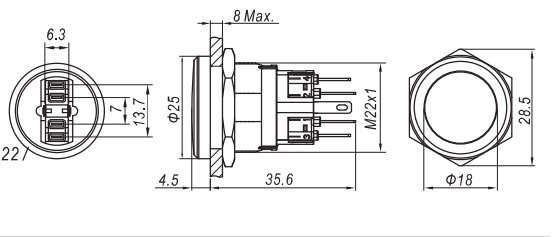


Super flat head can be customized



GQ22-11E/▲/PC

Contact Structure 11: 1NO1NC  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material PC: engineering plastic  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket M11 / PCB socket M11-A / Quick connect socket M22

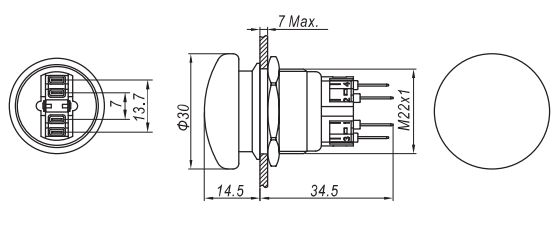


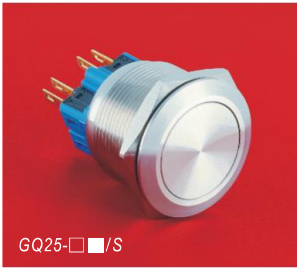
Super flat head can be customized



GQ22-11■M

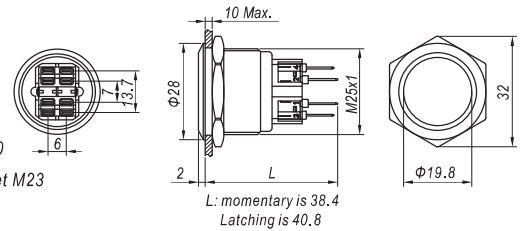
Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material aluminium alloy  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-22F / Solder socket M11 / PCB socket M11-A / Quick connect socket M22



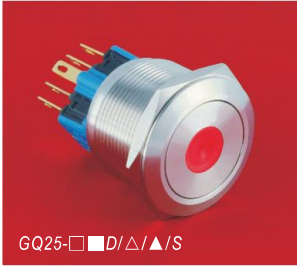


GQ25-□□/S

Contact Structure □ 11: 1NO1NC 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-25F / Quick connect socket M23

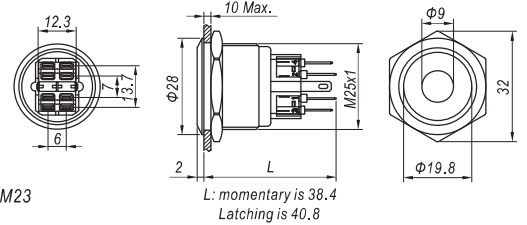


L: momentary is 38.4  
 Latching is 40.8

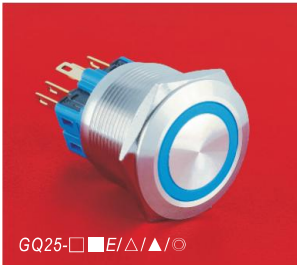


GQ25-□□D/△/▲/S

Contact Structure 11: 1NO1NC 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-25F / Quick connect socket M23

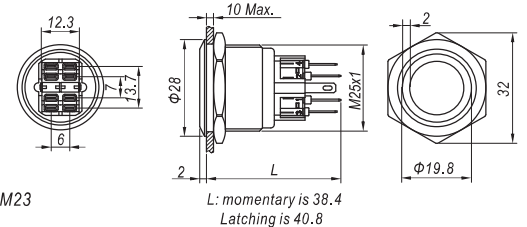


L: momentary is 38.4  
 Latching is 40.8



GQ25-□□E/△/▲/○

Contact Structure 11: 1NO1NC 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material © S: Stainless steel / A: Aluminium alloy (Black)  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-25F / Quick connect socket M23

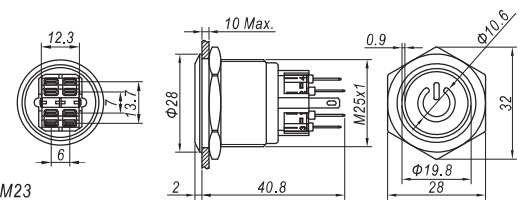


L: momentary is 38.4  
 Latching is 40.8



GQ25-□□ET/△/▲/S

Contact Structure 11: 1NO1NC 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10  
 Applicable accessories Sealing cover M12-25F / Quick connect socket M23

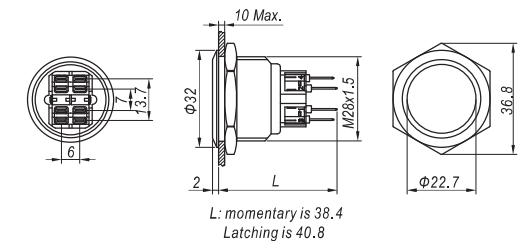


L: momentary is 38.4  
 Latching is 40.8

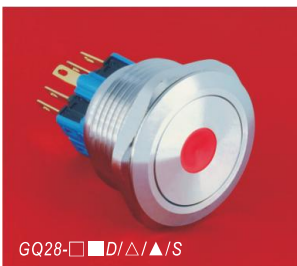


GQ28-□□/S

Contact Structure □ 11: 1NO1NC 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10

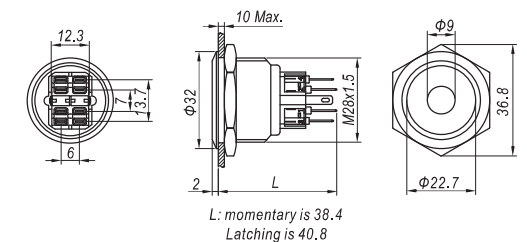


L: momentary is 38.4  
 Latching is 40.8



GQ28-□□D/△/▲/S

Contact Structure 11: 1NO1NC 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10



L: momentary is 38.4  
 Latching is 40.8



Sealing cover  
 M12-25F



Quick connect socket  
 M23



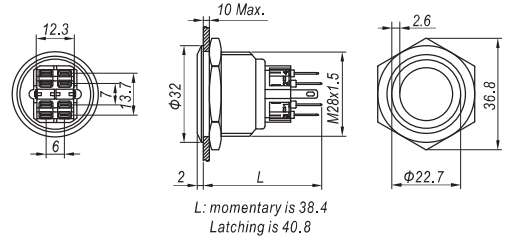
Panel plug  
 M04

Φ25



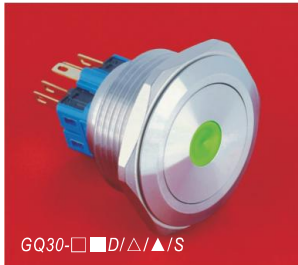
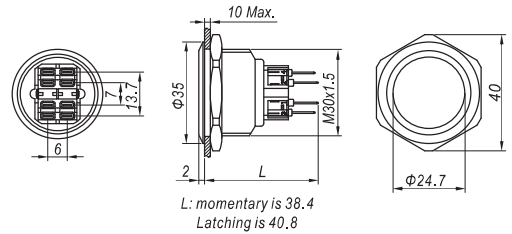
GQ28-□□E/△/▲/S

Contact Structure 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10



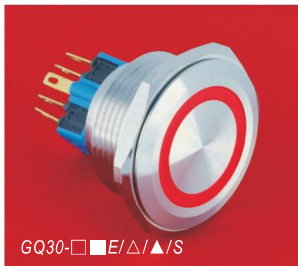
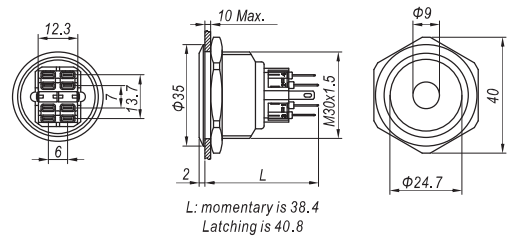
GQ30-□□/S

Contact Structure□ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10



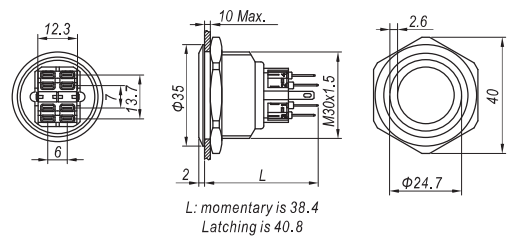
GQ30-□□D/△/▲/S

Contact Structure 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10



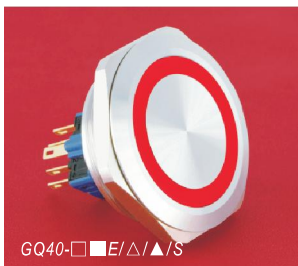
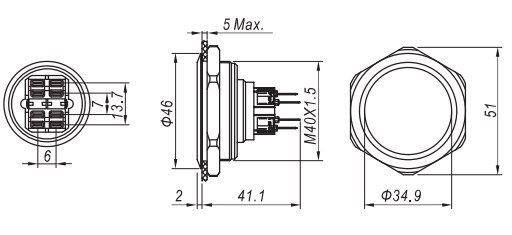
GQ30-□□E/△/▲/S

Contact Structure 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10



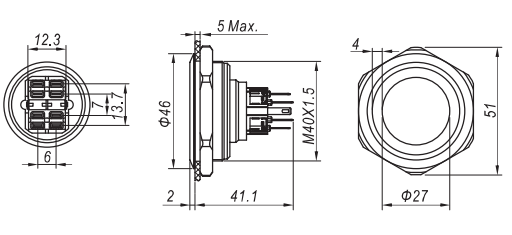
GQ40-□□/S

Contact Structure□ 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10



GQ40-□□E/△/▲/S

Contact Structure 11: 1NO1NC / 22: 2NO2NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK10





## GQ★-L series

- ☆ Mounting hole diameter is  $\Phi 22\text{mm}$ ,  $\Phi 25\text{mm}$ ,  $\Phi 30\text{mm}$ ;
- ☆ The switch is "fast action | SPDT";
- ☆ The rated value of this series of switches is up to 220VAC/5A, with stable performance and durability, which is the best choice for high-current users;
- ☆ The waterproof grade of the product is IP65/IP67.



### GQ★-L series model description

GQ★-L-□■◇/J/△/▲/◎

Symbol	Symbol name	Specify
★	Mounting hole diameter	22: $\Phi 22\text{mm}$ / 25: $\Phi 25\text{mm}$ / 30: $\Phi 30\text{mm}$
□	Contact Structure	11: 1NO1NC / No digital means indicator
■	Operation type	Z: Latching / M: Mushroom button / No letter means momentary
◇	Illuminated Type	E: ○ Ring illuminated / ET: ☺ Ring+power symbol illuminated / No letters mean no lights
◆	Wiring type	J: Terminal lug / No letter represents terminal post
△	Color	R: Red / G: Green / Y: Yellow / B: Blue / W: White
▲	Voltage	6V / 12V / 24V / 110V / 220V other voltage levels can be customized.
◎	Housing Material	S: Stainless steel

Note: Please read the catalog carefully, and choose the right part-number according to the sign.

### Performance Characteristic

Operating Temp	-25°C~+55°C (Non freezing) Keep the switch air circulating well
Operating Humidity	45~85% RH(Non condensing)
Contact Resistance	$\leq 50\text{m}\Omega$
Insulation Resistance	$\geq 100\text{M}\Omega$ (500VDC)
Max. withstanding voltage	1500VAC, 50Hz, 1min
Vibration resistance	50Hz, The amplitude is about 1.2mm
Solder heat resistance	320°C 3s
Switch rating	2A/220VAC
Mechanical Life	1,000,000 cycles
Electrical Life	50,000 cycles
Base material	PA/PC
Nut torque	About 0.8Nm
Torque	About 4N(IP65)
	About 5N(IP67)
Operation Travel	About 2.5mm
Protection class	IP65(momentary IP67 can be customized),IK09

### Pin Description



1. 2 is normally closed contact NC;  
3. 4 is normally open contact NO;  
The + and - pin is the lamp bead pin, and the conventional lamp bead configuration has no difference between positive and negative poles; The lamp bead is relatively independent of the switch, and the lamp bead status can be controlled by the switch or peripheral circuit.

### Standards and certification

Corresponding standard	Certification mark	Certification authority / certification number
GB/T 14048.5-2017		20201201000018
EN61058-1:2018		UDEM/M.2021.206.C62197

### Switch Rating

Rated Insulation Voltage $U_i$		250V				
Thermal Current $I_{th}$		5A				
Rated voltage		12V	24V	110V	220V	
Rated Operation Current	AC 50/60Hz	Resistive load	—	—	5A	3A
		Inductive load	—	—	3A	2A
	DC	Resistive load	5A	5A	1A	0.5A
		Inductive load	2A	2A	0.2A	0.1A
Contact material		Silver Alloy				

Minimum load: 3V AC/DC, 5mA (Reference)

Application scope depends on operating environment and load type.

### Switch structure description

Type	Diagram	Symbol
Za		

### LED Specifications

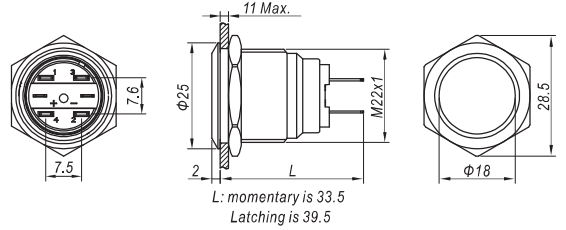
LED life	Current	Allowable voltage fluctuation range	Circuit diagram
$\geq 40000$ hours	$\leq 24\text{V}$ about 15mA $\geq 110\text{V}$ about 2mA	DC: $\pm 10\%$ AC: $\pm 20\%$	
The product has built-in protective resistance, and the lamp bead wiring has no distinction between positive and negative poles.			





GQ22-L-11 J/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket S21 / PCB socket S22

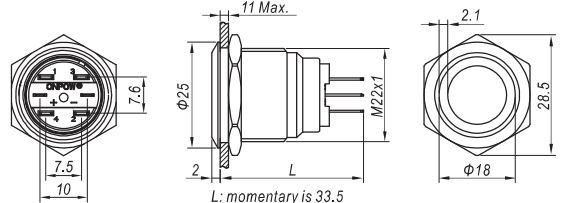


L: momentary is 33.5  
Latching is 39.5



GQ22-L-11 E/J/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket S21 / PCB socket S22

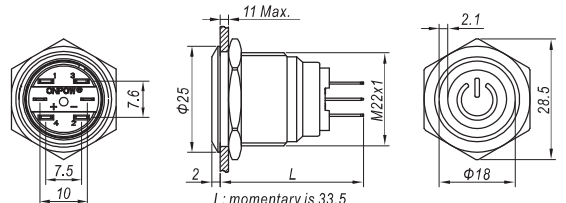


L: momentary is 33.5  
Latching is 39.5



GQ22-L-11 ET/JI/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22 / Solder socket S21 / PCB socket S22

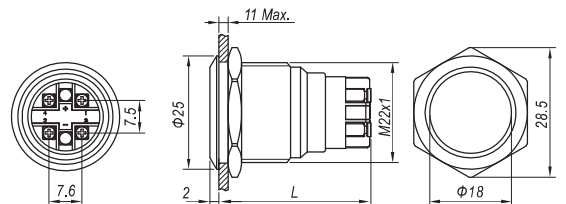


L: momentary is 33.5  
Latching is 39.5



GQ22-L-11 S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22

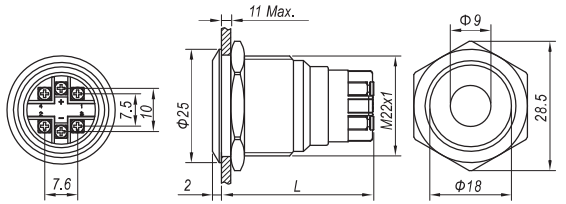


L: momentary is 38 Max  
Latching is 44.5 Max



GQ22-L-11 D/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22

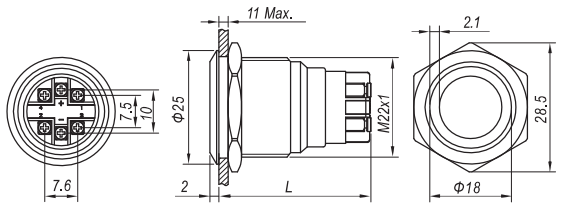


L: momentary is 38 Max  
Latching is 44.5 Max



GQ22-L-11 E/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22



L: momentary is 38 Max  
Latching is 44.5 Max



Sealing cover M12-22F



Protection cover T21-22



Solder socket S21



PCB socket S22

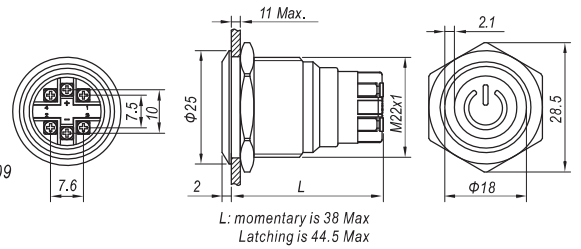


Panel plug M03



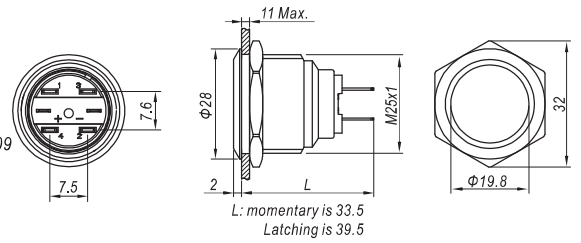
GQ22-L-11 ■ ET/Δ/▲/S

Contact Structure 11: 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-22F / Protection cover T21-22



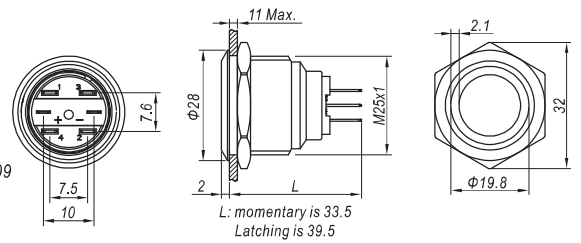
GQ25-L-11 ■ J/S

Contact Structure 11: 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-25F / Solder socket S21 / PCB socket S22



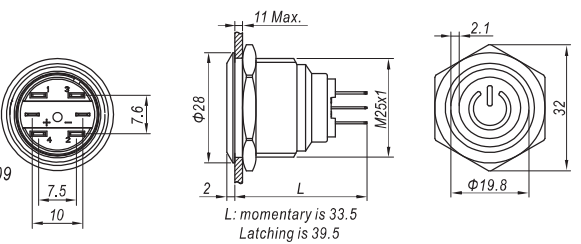
GQ25-L-11 ■ E/J/Δ/▲/S

Contact Structure 11: 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-25F / Solder socket S21 / PCB socket S22



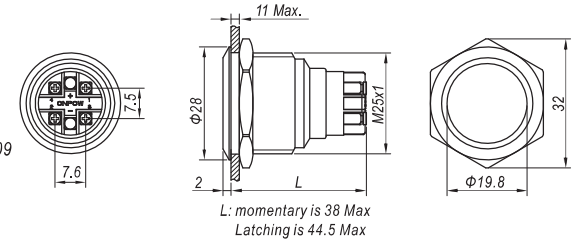
GQ25-L-11 ■ ET/J/Δ/▲/S

Contact Structure 11: 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-25F / Solder socket S21 / PCB socket S22



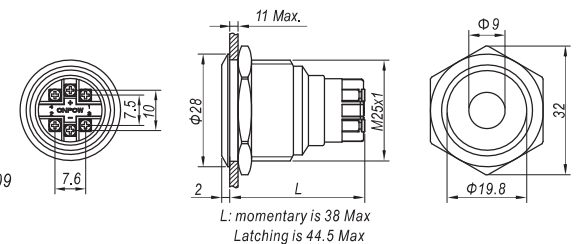
GQ25-L-11 ■ J/S

Contact Structure 11: 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-25F



GQ25-L-11 ■ D/Δ/▲/S

Contact Structure 11: 1N01NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized),IK09  
 Applicable accessories Sealing cover M12-25F



Sealing cover M12-25F



Solder socket S21



PCB socket S22



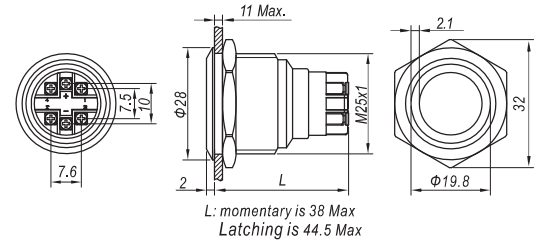
Panel plug M04





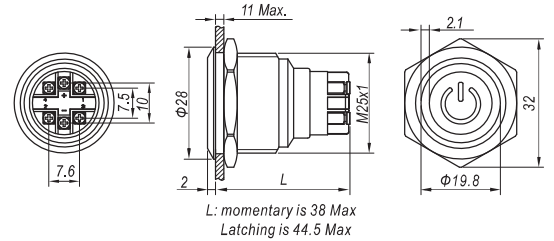
GQ25-L-11 ■ E/△/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09  
 Applicable accessories Sealing cover M12-25F



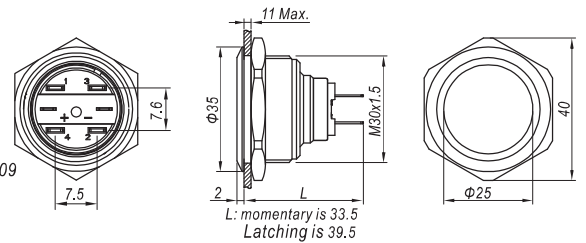
GQ25-L-11 ■ E/T/△/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09  
 Applicable accessories Sealing cover M12-25F



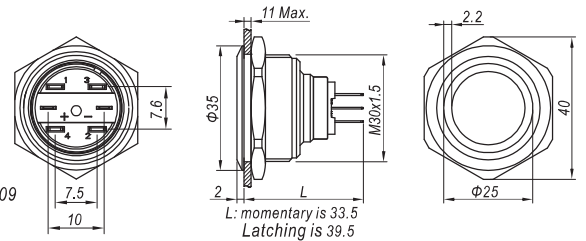
GQ30-L-11 ■ /J/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09



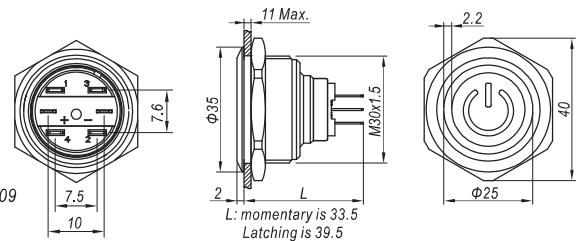
GQ30-L-11 ■ E/J/△/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09



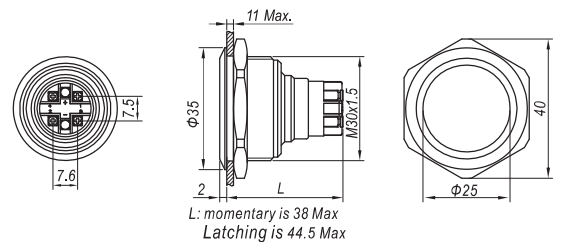
GQ30-L-11 ■ E/T/J/△/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color △ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09



GQ30-L-11 ■ /S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09



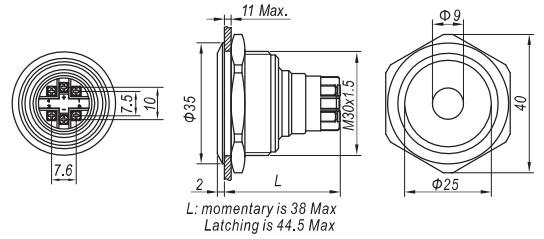
Sealing cover  
M12-25F

Panel plug  
M04



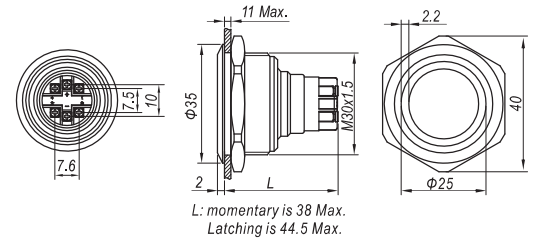
GQ30-L-11 D/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09



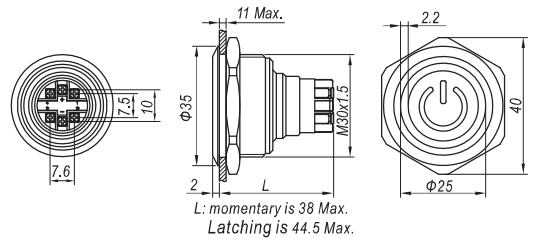
GQ30-L-11 E/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09



GQ30-L-11 ET/Δ/▲/S

Contact Structure 11: 1NO1NC  
 Operation type ■ Z: Latching / No letter means momentary  
 Color Δ R G Y B W  
 Voltage ▲ 6V/12V/24V/110V/220V  
 Housing Material S: Stainless steel  
 Protection class IP65(momentary IP67can be customized), IK09





**1** Customize Product Shape



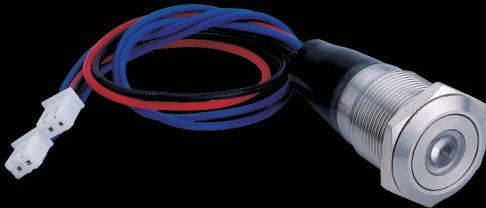
**2** Customize The Front Color



**3** Customize The Connection



**4** Customize Waterproof Terminals And Connections



**5** Customize The Front Shape (braille)

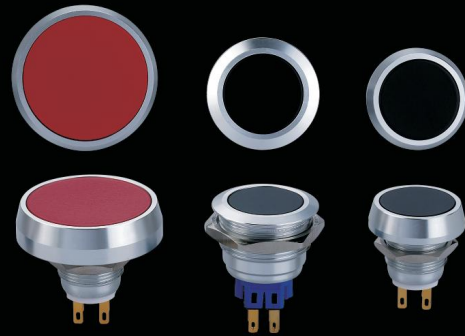


**6** Laser Engraving



*If you have any special requirements, we can help you.*

**7** Customize The Front Shape



**8** Customize Lighting Sign



**9** Customize Lighting Sign



**10** Customize Product Color

