

Product Overview

Y090 series are beautiful in appearance and complete in variety, and can provide a variety of solutions for industrial automation, medical equipment, electric power, machinery and other industry users to provide a variety of solutions.

Specs Products include buttons, signal indicators, emergency stop knob, knob, key knob, mushroom key knob, mushroom knob; $\Phi 22$ installation aperture, widely used.

Performance Using high quality inflaming retarding materials. Switch unit is separated independently and the insulating performance is very well. The product meets standards of IEC60947-5-1, GB14048.5 etc

Structure The switch unit is slow-break and self-cleaning. It uses modular combination mode and you can combine from one to eight switch units optional, so can make the product meet the requirement of many special control circuits.

Protective Degree Protection class IP40



Performance Characteristics

Operating temperature	-25 ~ + 55°C (no freezing) keep the air flowing around illuminated push button
Operation Humidity	45~85%RH (no condensation)
Contact Resistor	$\leq 50m\Omega$
Insulation Resistor	$\geq 100M\Omega(500VDC)$
Maximum withstand voltage	3000V, AC 50Hz, 1min
Vibration Resistance	50Hz, Amplitude 1.0mm
Mechanical Life	Momentary knob ≥ 1 million times
	key knob, emergency stop button $\geq 200,000$ times Latching knob, selection knob $\geq 500,000$ times
Electrical Life	$\geq 50,000$ times
Connection	Threaded connection, wire diameter: 2 x 1.5 mm ² max
	Pin terminal: 6.3x0.8mm
Operating force	1NO1NC: approx. 8N, 2NO2NC: approx. 14N (button)
Operation Travel	Approx. 5.5 mm (button)

Switch Ratings

Rated Insulation Voltage(Ui)		660V						
Terminal Current (Ith)		10A Temperature rise does not exceed the current allowed by the maximum rating						
Rated Voltage		24V	48V	110V	220V	380V	500V	
Rated Current	AC 50/60Hz	Resistive load	10A	—	10A	6A	—	—
		Inductive load	10A	—	6A	3A	1.8A	1.4A
	DC	Resistive load	8A	4A	2.2A	1.1A	—	—
		Inductive load	4A	2A	1.1A	0.6A	—	—
Contact material		Silver alloy						

Minimum adaptable load: 3VAC/DC 5mA (available range depends on the use environment and load type)

Lamp Ratings

Lamp type	2-way Illuminated LEDs			
Rated Voltage	AC/DC 6V	AC/DC 12V	AC/DC 110V	AC/DC 220V
	AC/DC 24V		AC 110V	AC 220V
Rated Current	20mA			
Lamp Life	40,000 hours			
Cover Color	R G Y B W			
Equivalent circuit	AC/DC: (resistor step-down)			
AC: (capacitor step-down)		Suitable Frequency: 50~60Hz		

Installation Dimensions and circuit diagram

Installation Dimensions

Circuit Diagram

The switch code is 11.
1, 2 are normal closed;
3, 4 are normal opened;

Type	A	B	C	Remark
Normal, Key-lock	50	40		1. Unit: mm 2. A and B both refer to the minimum size
Selector	50	40	$\Phi 22$	
Mushroom	50	50	$\Phi 25$	
Big Mushroom	70	70	$\Phi 30$	

The Contact Pair's Close-open State Chart of the Selector Switches and Key-lock Switches.

a、The Contact Pair's Close-open State Chart of 2-position Selector Switch.

	Type		
1	Y090-11 /2		
2	Y090-02 /2		
3	Y090-20 /2		
4	Y090-22 /2		
5	Y090-13 /2		
6	Y090-31 /2		
7	Y090-04 /2		
8	Y090-40 /2		
9	Y090-42 /2		
10	Y090-24 /2		
11	Y090-06 /2		
12	Y090-60 /2		
13	Y090-33 /2		
14	Y090-15 /2		
15	Y090-51 /2		

B、The Contact Pair's Close-open State Chart of 3-position Selector Switch.

	Type			
1	Y090-11 /3			
2	Y090-02 /3			
3	Y090-20 /3			
4	Y090-22 /3			
5	Y090-13 /3			
6	Y090-31 /3			
7	Y090-04 /3			
8	Y090-40 /3			
9	Y090-42 /3			
10	Y090-24 /3			
11	Y090-06 /3			
12	Y090-60 /3			
13	Y090-33 /3			
14	Y090-15 /3			
15	Y090-51 /3			

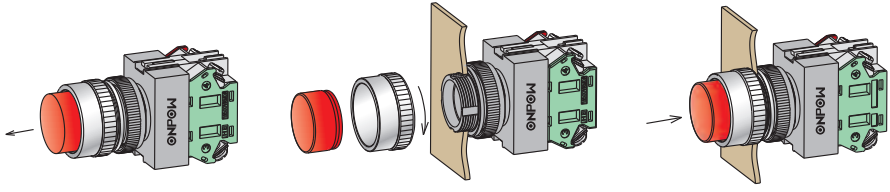
Note: 1. express open state, express close state.
 2. If you need other contact state, please tell us.

Y090 Series model description

Y090- / / / /

Symbol	Symbol name	Specify
Y090	Series No.	Series number; if you need economic type, please add "E" at the end, i.e.: Y090E
	Contact structure	one group of switching elements 11(1NO1NC) / 10(1NO) / 01(1NC) / 20(2NO) / 02(2NC)
		two groups of switching elements 22(2NO2NC) / 40(4NO) / 04(4NC) / 31(3NO1NC) / 13(1NO3NC) 30(3NO) / 03(3NC) / 21(2NO1NC) / 12(1NO2NC)
		Three groups of switching elements configuration and so on, can choose the combination according to the need
	Operation type	No letter means Momentary D: Signal indicator / BD: Ball signal indicator / Z: latching button / G: High button / M: Mushroom button / ZM: latching mushroom button / TS: Emergency stop button / X: Rotary knob / XB: Knob / Y: Key Knob / YM: Mushroom Key Knob / M: Continuous Buzzer / S: Flashing Light / SM: Flashing Intermittent Buzzer
	Selector button and key button operation position	2: Two position / 3: Three position
	Selector Knob and Key Knob operation Type	1 maintain / 2 half return / 3 self return
	Lamp color	R: Red / G: Green / Y: Yellow / B: Blue / W: White / N: Black
	Lamp voltage	6V / 12V / 24V / 110V / 220V / 380V / No letter means no light

Instruction



, Take out the head with a starter, and unscrew the aluminum screw.

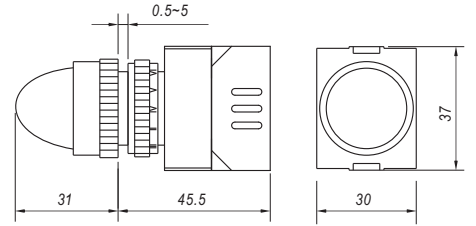
, Then put the switch into the panel's hole.

, Screw the screw, then put the head onto the switch.

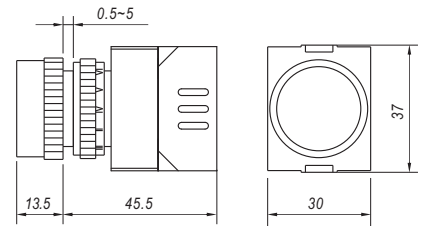
Product Picture	Description	Dimension
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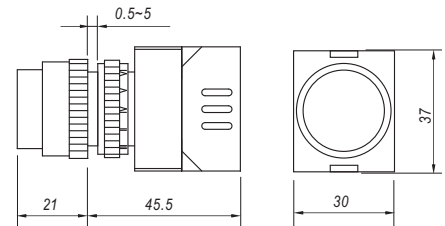
LED color **R G Y B W**
 LED voltage 6V / 12V / 24V / 110V / 220V / 380V
 IP degree IP40
 Accessory T04 Sign Frame



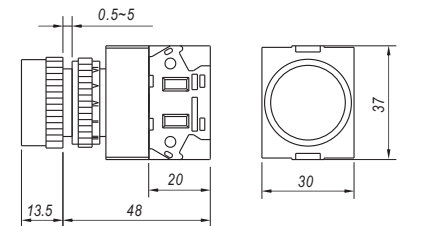
LED color **R G Y B W**
 LED voltage 6V / 12V / 24V / 110V / 220V / 380V
 IP degree IP40
 Accessory T04 Sign Frame



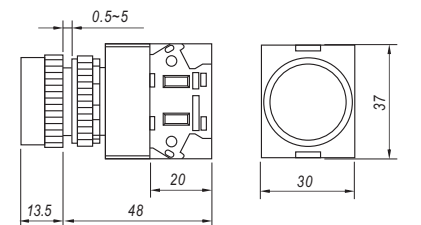
LED color **R G Y B W**
 LED voltage 6V / 12V / 24V / 110V / 220V / 380V
 IP degree IP40
 Accessory T04 Sign Frame



Contact 11: 1NO1NC / 10: 1NO / 01: 1NC
 Other switch combinations refer to the model description
 Operation Z: Latching / No letter: Momentary
 LED color **R G Y B W N**
 LED voltage 6V / 12V / 24V / 110V / 220V / 380V
 IP degree IP40
 Accessory Seal cover T01 / Sign frame T04 / Protective cover T17



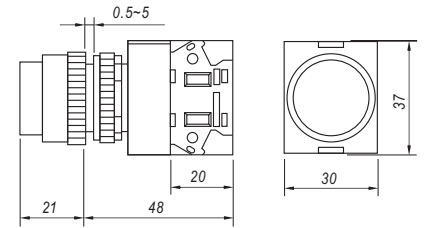
Contact 11: 1NO1NC / 10: 1NO / 01: 1NC
 Other switch combinations refer to the model description
 Operation Z: Latching / No letter: Momentary
 LED color **R G Y B W N**
 LED voltage 6V / 12V / 24V / 110V / 220V / 380V
 IP degree IP40
 Accessory Seal cover T01 / Sign frame T04 / Protective cover T17



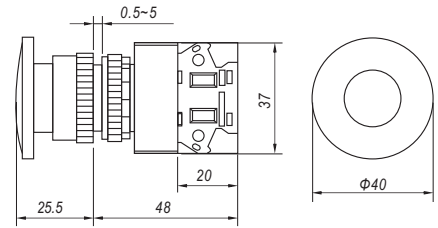
Product Picture	Description	Dimension
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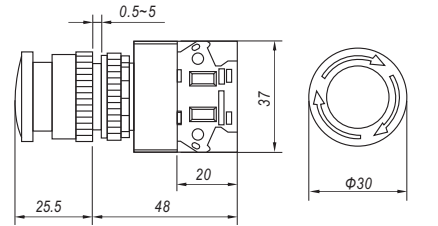
Contact 11: 1NO1NC / 10: 1NO / 01: 1NC
Other switch combinations refer to the model description
Operation Z: Latching / No letter: Momentary
LED color **R G Y B W N**
LED voltage 6V / 12V / 24V / 110V / 220V / 380V
IP degree IP40
Accessory Protective cover T16



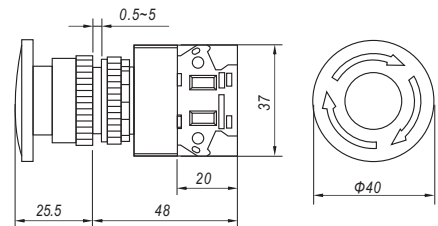
Contact 11: 1NO1NC / 10: 1NO / 01: 1NC
Other switch combinations refer to the model description
Operation Z: Latching / No letter: Momentary
LED color **R G Y**
LED voltage 6V / 12V / 24V / 110V / 220V / 380V
IP degree IP40
Accessory Protective cover T16



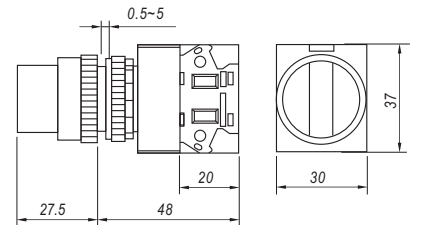
Contact 11: 1NO1NC / 10: 1NO / 02: 2NC
Other switch combinations refer to the model description
LED color **R G**
LED voltage 6V / 12V / 24V / 110V / 220V / 380V
IP degree IP40
Accessory Warning ring T14-2260 / T26 protection ring



Contact 11: 1NO1NC / 10: 1NO / 02: 2NC
Other switch combinations refer to the model description
LED color **R G**
LED voltage 6V / 12V / 24V / 110V / 220V / 380V
IP degree IP40
Accessory Warning ring T14-2260 / T26 protection ring



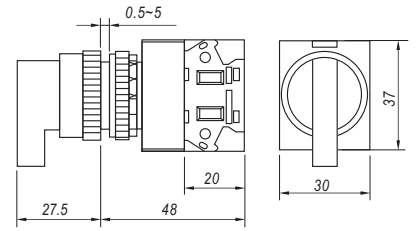
Contact 11: 1NO1NC / 20: 2NO / 02: 2NC
Other switch combinations refer to the model description
Operation (32 Default right momentary, left momentary can be customized)
Contact, pls refer to "contact on/off chart"
LED color **R G Y N**
LED voltage 6V / 12V / 24V / 110V / 220V / 380V
IP degree IP40
Accessory T04 sign frame



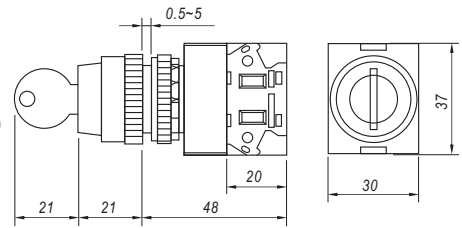
Product Picture Description Dimension



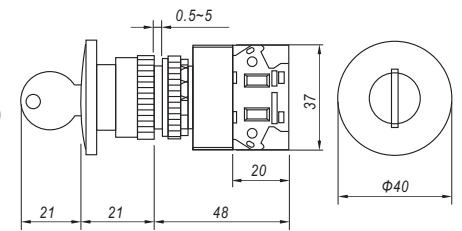
Contact 11: 1NO1NC / 20: 2NO / 02: 2NC
 Other switch combinations refer to the model description
 Operation (32 Default right momentary, left momentary can be customized)
 Contact, pls refer to "contact on/off chart"
 LED color **R G N**
 IP degree IP40
 Accessory T04 sign frame



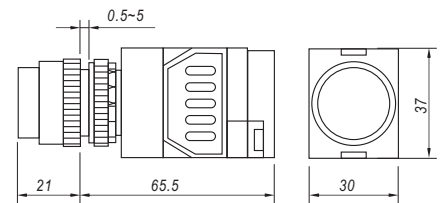
Contact 11: 1NO1NC / 20: 2NO / 02: 2NC
 Other switch combinations refer to the model description
 Operation (32 Default right momentary, left momentary can be customized)
 Contact, pls refer to "contact on/off chart"
 IP degree IP40
 Accessory T04 sign frame



Contact 11: 1NO1NC / 20: 2NO / 02: 2NC
 Other switch combinations refer to the model description
 Operation (32 Default right momentary, left momentary can be customized)
 Contact, pls refer to "contact on/off chart"
 LED color **R G**
 IP degree IP40
 Accessory T04 sign frame







LED color **R**
 LED voltage 6V / 12V / 24V / 110V / 220V
 IP degree IP40
 Rated sound intensity 75dB (1m) (rated voltage)
 Frequency 2.3kHz 300Hz







Product Outline of Economical Type

Refer to Y090 product selection

P/N	Fast Installation Pilot Lamp Y090E-DS/ / /	Round Pilot Lamp Y090E-D/ /	Domed Pilot Lamp Y090E-BD/ /	Fast Installation Flat Head (can be illuminated) Y090E- S/ / Y090E- S/ / /
Shape				

P/N	Flat Head (can be illuminated) Y090E- / / Y090E- / / /	Long Head (can be illuminated) Y090E- G/ Y090E- G/ /	Mushroom Pushbutton (can be illuminated) Y090E- M/ Y090E- M/ /	30mm Emergency Pushbutton (can be illuminated) Y090E- TSA/ Y090E- TSA/ /
Shape				

P/N	40mm Emergency Pushbutton (can be illuminated) Y090E- TS/ Y090E- TS/ /	Selector Switch (can be illuminated) Y090E- X/ / Y090E- X/ / /	Lever Switch Y090E- XB/ /	Key-lock Switch Y090E- Y/
Shape				

P/N	Mushroom Key-lock Switch Y090E- YM / /			
Shape	