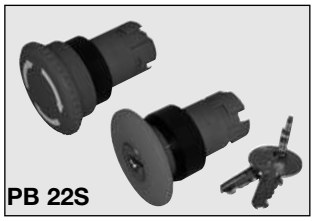
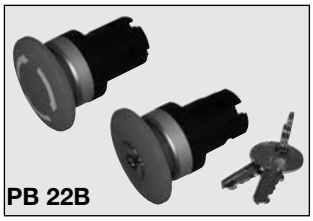
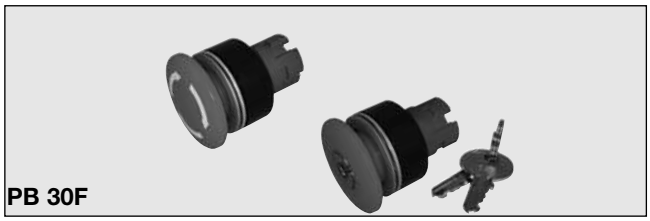
Panel Actuators and Indicators
Type PB
Red Emergency Stop Push Buttons


PB 22S


PB 22B


PB 30F

- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush style
- Mushroom shape
- Push to lock, turn clockwise to reset
- Push to lock, unlock by turning the key
- Ø 40mm (Ø1.57") or Ø 60mm (Ø2.36") head
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529
- EN 418
- IEC/EN 60947-5-5

Product description

The STOP function is obtained by pushing the head while the reset is obtained by turning clockwise the head or the key.
It is used in dangerous situations when emergency measures are required.
They should be ordered in parts (operator + holder + contact block) and installed in an enclosure.

Ordering key

PB 22S EM4 1 R

Series
Dimension and Style
Type
Action
Colour

Approvals

c UL us LISTED 3MHG CE RoHS COMPLIANT

Dimensions and styles

22S = Ø22mm (Ø0.87") Standard style
22B = Ø22mm (Ø0.87") Bezel style
30F = Ø30mm (Ø1.18") Flush style

Types

EM4 = Red emergency stop Ø40mm (Ø1.57")
EM6 = Red emergency stop Ø60mm (Ø2.36")
KEM4 = Red key-reset emergency stop Ø40mm (Ø1.57")

Action

1 = Maintained

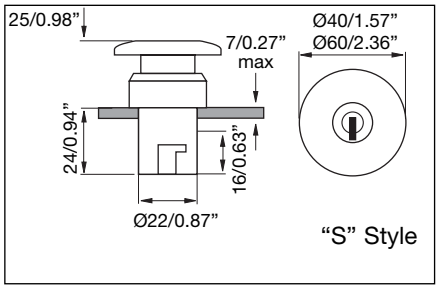
Colour

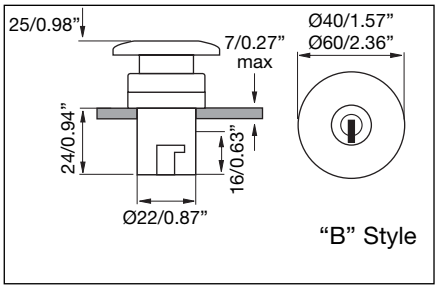
R = Red

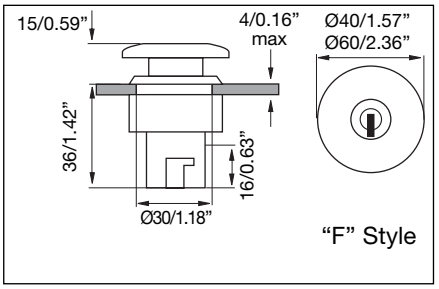
General data

Peripheral of actuator	**AL**
Actuator	**Pa**
Mechanical life	**≥5 x 10^4 cycles**
Operating temperature	**-25 to +70°C (-13 to +158°F)**
Storage temperature	**-30 to +80°C (-22 to +176°F)**
Degree of protection	**IP 65**

Dimensions - Push Buttons mm/inches







Panel Actuators and Indicators
Type PA2
Contact Block

- **High switching power**
- **Double switch**
- **Industrial applications**
- **10A switching capacity**
- **Up to 500VAC**
- **Modular mounting (up to 3 elements)**
- **Screw terminals**
- **High reliability**
- **cULus and CE**
- **IEC/EN 60947-5-1, IEC/EN 60947-5-5, UL 508**

Product description

Switching element equipped with two independent elements. Available in different switching configurations. Pole and throw configurations can be single pole single throw (SPST) or double pole single throw (DPST).
Elements can be snapped to each other on the bottom, up to 3.

Ordering key

PA 2 110 / 1

Type
Number of contacts
Contact code
Options (1 = Snap action
2 = Slow action with forced opening ⊖ NC contact**)**

Approvals

c UL us LISTED 3MHG CE RoHS COMPLIANT

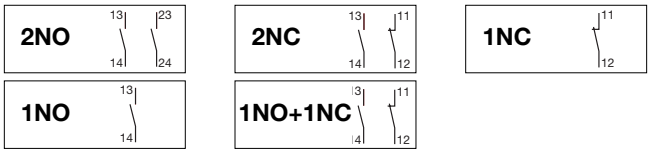
Terminals

Screw terminals	
Max. section sigle-core wire	**2 x 2.5mm² (0.004sq.inch)**
Max. section stranded wire	**2 x 1.5mm² (0.002sq.inch)**
Copper conductor wire	**14 AWG**
Terminal tightening torque	**1.2Nm (10.6in.lb.)**

Technical data

Contact resistance	**≤50mΩ**
Travel	**5.8 ± 0.2mm (2.28" ± 0.08")**
Rated insulation Voltage U_i	**660VAC/DC** (acc. to IEC 60947-5-1) **600VAC/DC** (acc. to UL508)
Rated imp. withstand voltage U_{imp}	**2500VAC 50Hz 1min.**
Minimum switching power	
Min Current	**100mA**
Min Voltage	**24V**
Switch housing	**PC**
Contact parts	**Cu**
Contact material	
Standard	**Hard silver**
Optional	**Gold/silver**
Optional for aggressive atmospheres	**Silver/palladium**
Operating temperature	**-25 to +70°C (-13 to +158°F)**
Storage temperature	**-30 to +80°C (-22 to +176°F)**

Wiring diagram



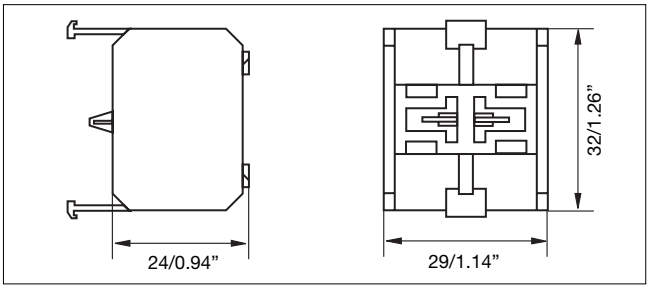
Contact code

Contact configuration	Contact code
2 NO contacts (DPST)	**200**
2 NC contacts (DPST)	**020**
1 NC contact (SPST)	**010**
1 NO contact (SPST)	**100**
1 NC + 1 NO contacts (DPST)	**110**

Contact characteristics

Contact Rating AC1	**10A @ 250VAC**		
Contact Rating		**AC15**	**DC13**
(acc. to IEC 60947-5-1)	**@ 24V**	**10A**	**6A**
	@ 110V	**8A**	**1A**
	@ 220V	**6A**	**0.5A**
	@ 380V	**4A**	**-**
	@ 500V	**2.5A**	**-**
Thermal Contact Rating	**10A (A600) 5A (B600)**		
(acc. to UL 508)	**2.5A (Q600/Q300)**		
AC Contact Rating (acc. to UL 508)		**A600**	**B600**
B600 (all snap codes)	**@ 120V**	**6A**	**3A**
A600 (all slow codes)	**@ 240V**	**3A**	**1.5A**
	@ 480V	**1.5A**	**0.75A**
	@ 600V	**1.2A**	**0.6A**
DC Contact Rating (acc. to UL 508)		**Q600**	**Q300**
Q600 (all snap codes)	**@ 125V**	**0.55A**	**0.55A**
Q600 (100, 200 slow codes)	**@ 250V**	**0.27A**	**0.27A**
Q300 (010, 020, 110 slow codes)	**@ 480V**	**0.10A**	**-**
	@ 600V	**0.10A**	**-**

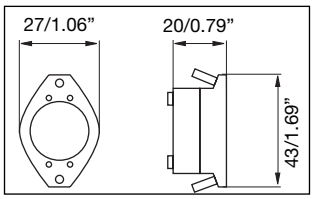
Dimensions mm/inches



Holders

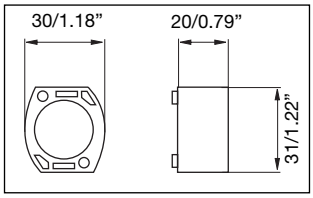
Holder type “M”

Code	**PB MB M**
Material	**Zn + PBT**



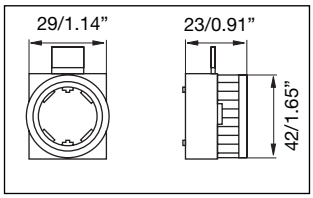
Holder type “P”

Code	**PB MB P**
Material	**PBT**



Holder type “N”

Code	**PB MB N**
Material	**PC**

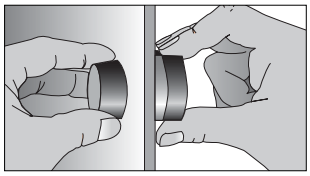


Assembling and Mounting

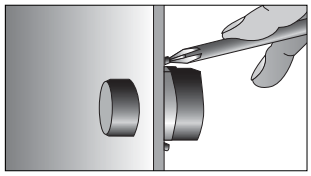
It come easy to get a complete product. Just to choose the operator, the holder, the lamp element and the contact block (up to 3).

Operator | Holder | Contact block | Bezel Push Button with PA2

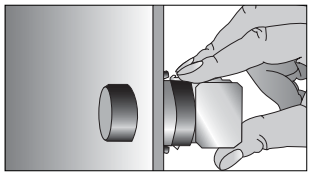
To install it, the only tool needed is a screwdriver. The same used to wiring the contact block can be used to fix the push-button.



The operator will be inserted into the panel.



The holder will be secured at the back by two screws or nut.



The contact block is snapped on.

Accessories for Panel Actuators

Terminal shield

Installed behind the wiring screws of the contact block to avoid electric shock.	PC		**PA 2 SHIELD**

Mounting ring Ø22mm (0.87”)

Installed on plastic panel to strengthen mounting.	FE		**PA MR 22**

Mounting ring Ø25mm (0.98”)

When the mounting hole is Ø25mm (0.98”), it should be add to the panel.	FE		**PA MR 25**

Front bezel set Ø30mm (1.18”)

For Ø30mm (1.18”) panel hole, to have a thinner effect.	AL		**PA FBZL 30**

Warning plate

For emergency stop push buttons. Thickness 1.5mm/0.059”	ABS	Ø60mm/Ø2.36” Ø90mm/Ø3.54”	**PA WP 6** **PA WP 9**

Panel hole cap Ø22mm (0.87”)

For blocking up prepared or useless holes on the panels.	ABS		**PA PHC 22**