## Panel Actuators and Indicators **Type PB** Long-handle Selector Switches





#### **PB 22B**

#### **Product description**

Selector switches are mechanical switches that can be turned right, center or left to open or to close the electric contacts. They are mostly used to start/stop devices or to switch between two/three electric circuits. They should be ordered in parts (operator + holder + contact block) and installed in

an enclosure.

## Approvals



#### Type

LRS = Long-handle selector switch

 Self-hold or spring return Knob colour choice Two and three positions

cULus and CE

Action

Colour

#### **Dimensions and styles**

22S = Ø22mm (Ø0.87") Standard style 22B = Ø22mm (Ø0.87") Bezel style

Actions (the arrows indicate the spring return function)

**21** = Two positions L R **22** = Two positions L<sup>\*</sup> C **23** = Two positions C <sup>\*</sup>R 32 = Three positions L<sup>≠</sup> C **33** = Three positions L\* C R **34** = Three positions L C \*R 31 = Three positions L C R

#### Colours

1

R = Red	Y = Yellow
K = Black	G = Green

#### **General data**

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥30 x 10⁴ 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



Ordering key **PB 22S LRS 32 R** Series **Dimension and Style** Туре

• IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529

Specifications are subject to change without notice. Pictures are just an example. For special features and/or custumization, please ask to our sales network. 122011

# Panel Actuators and Indicators Type PA2 Contact Block



# **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.

## Approvals



# Technical data

Contact resistance	<b>≤50m</b> Ω
Travel	5.8 ± 0.2mm (2.28" ± 0.08")
Rated insulation Voltage U <sub>i</sub>	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 Min Voltage	100mA 24V
Switch housing	PC
Contact parts	Cu
Contact material	
Standard Optional Optional for aggressive atmospheres	Hard silver Gold/silver Silver/palladium
Operating temperature	-25 to +70°C (-13 to +158°F)
Storage temperature	-30 to +80°C (-22 to +176°F)

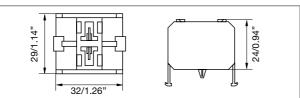
#### Terminals

Screw terminals Max. section sigle-core wire Max. section stranded wire Copper conductor wire

Terminal tightening torque

2 x 2.5mm<sup>2</sup> (0.004sq.inch) 2 x 1.5mm<sup>2</sup> (0.002sq.inch) 14 AWG @ 60°C or 75°C CU conductor 1.2Nm (10.6in.lb.)

#### **Dimensions** mm/inches



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 CÉ
- According to EN ISO 13850 (only NC slow action)
- IEC/EN 60947-5-1, IEC/EN 60947-5-5, UL 508

# Ordering key



Туре

Number of contacts Contact code

Options (1 = Snap action

**2 = Slow action** with forced opening  $\bigcirc$  NC contact)

## 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**

Conta	ct Rat	ing A	AC1			10A @ 250VAC					
Conta	ct Rat	ing						Α	C15	D	C13
(acc. to	IEC 6094	47-5-1	)			@ 24	4V	•	10A		6A
						@ 1	10V		8A		1A
						@ 2	20V		6A	0	.5A
						@ 3	8 <b>0V</b>		<b>4A</b>		-
						@ 5	<b>V0</b> 0	2	.5A		-
AC Co	ntact F	Rating	g (acc	. to UL	. 508)			Α	600	В	600
<b>B600</b> (	all snap	codes	)			@ 1	20V		6A		3A
	all slow o					@ 24	40V		3A	1	.5A
						@ 4	BOV	1	.5A	0.7	75A
						@ 6	<b>V0</b> 0	1	.2A	0	.6A
DC Co	ntact F	Ratin	g (acc	. to UL	. 508)			Q	600	Q	300
Q600 (	all snap	codes	.)			@ 1	25V	0.	55A	0.5	55A
Q600	(100, 200	) slow	codes	5)		@ 2	50V	0.2	27A	0.2	27A
Q300 (	010, 020	), 110	slow o	odes)		@ 4	BOV	0.1	10A		-
				,		@ 6	<b>V0</b> 0	0.	10A		-
de t	al test	Maximum current, a				mperes (acc. to UL508) Maximum				mum	
Contact rating code designation Thermal continous test current,		120V 240V		480V		600V		volt-amperes			
CC desi	Thermal continous test current, Amperes	Make	Break	Make	Break	Make	Break	Make	Break	Make	Break
A600	10	60	6.00	30	3.00	15	1.5	12	1.2	7200	720
B600	5	30	3.00	15	1.50	7.50	0.75	6	0.6	3600	360
6	st .									Mavi	mum

Contact rating code designation	nermal inous test urrent, nperes	Maximum cu	urrent, amperes (ac	cc. to UL508)	Maximum make or break volt-amperes @ 300V or
Cont	Contin Contin Cur Am	125V	250V	301 to 600V	less
Q600	2.5	0.55	0.27	0.10	69
Q300	2.5	0.55	0.27	-	69
Wiri	ing	diagran	n		

# $\frac{2NO}{\frac{13}{14}} \frac{123}{\frac{24}{24}} = \frac{2NC}{\frac{13}{14}} \frac{1}{\frac{11}{12}} = \frac{1NC}{\frac{13}{14}} \frac{1}{\frac{11}{12}} = \frac{1NC}{\frac{13}{14}} \frac{1}{\frac{11}{12}}$

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## Holders

<b>Holder type "M"</b> Code Material	PB MB M Zn + PBT	27/1.06"	20/0.79"
<b>Holder type "P"</b> Code Material	PB MB P PBT	30/1.18"	20/0.79"
<b>Holder type "N"</b> Code Material	PB MB N PC	29/1.14"	23/0.91"

## **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

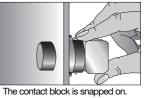
To install it, the only tool needed is a screwdriver. The same used to wiring the contact block can be used to fix the push-button.



The operator will be inserted into the panel.

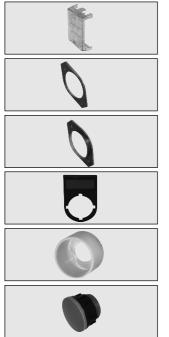


The holder will be secured at the back by two screws or nut.



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## **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
Label frame			
Hang it on the push button or pilot light, for symbol or text explanation.	PC	10mm/0.39" 18mm/0.71"	PA LBF 11 PA LBF 18
Yellow protection ring			
To protect button and to prevent strike or mistaking operation.	ABS Rubber	Ø40mm/Ø1.57" Ø60mm/Ø2.36"	PA YPR 4 PA YPR 6
Panel hole cap Ø22mm (0.87")			
For blocking up prepared or useless holes on the panels.	ABS		PA PHC 22

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