



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Panel Actuators and Indicators

Type PB

Short-handle Selector Switches



- Ø 22mm (Ø0.87") Standard and bezel style
- Self-hold or spring return
- Knob colour choice
- Two and three positions
- Illuminated version made by LED
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529



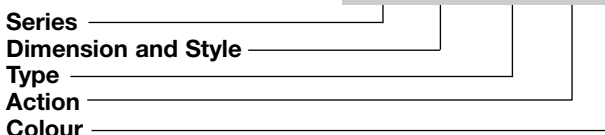
Product description

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.

Ordering key

PB 22S ISRS 32 R



Approvals



Dimensions and styles

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

Types

SRS = Short-handle selector switch
 ISRS = Illuminated¹ short-handle selector switch

¹ = Light function is obtained by the lamp element pg.19

Actions

(the arrows indicate the spring return function)

- | | |
|--|---|
| 21 = Two positions L R | 32 = Three positions L [↔] C ↯R
not for illuminated |
| 22 = Two positions L [↔] C
not for illuminated | 33 = Three positions L [↔] C R
not for illuminated |
| 23 = Two positions C ↯R
not for illuminated | 34 = Three positions L C ↯R
not for illuminated |
| 31 = Three positions L C R | |

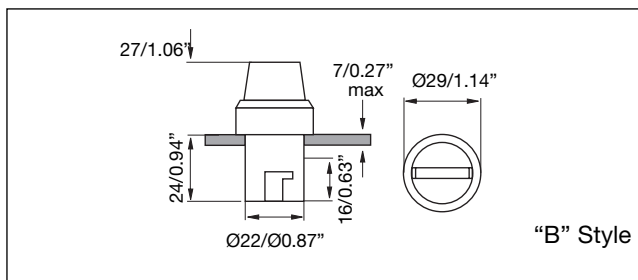
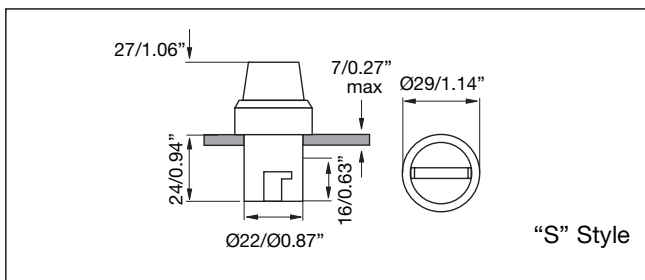
Colours

- | | |
|---------------------------------------|-----------------------------|
| R = Red | B = Blue (only illuminated) |
| W = Clear/White
(only illuminated) | Y = Yellow |
| K = Black (only not illuminated) | G = Green |

General data

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥30 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



Holders



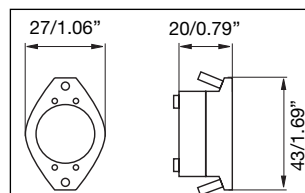
Holder type "M"

Code

PB MB M

Material

Zn + PBT



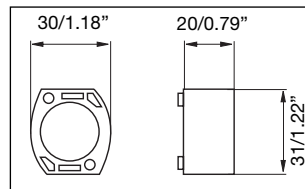
Holder type "P"

Code

PB MB P

Material

PBT



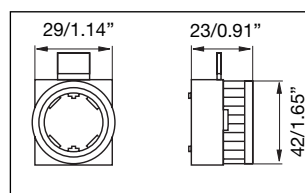
Holder type "N"

Code

PB MB N

Material

PC



Lamp Element



Ordering key

PALAMP R 220A

Type

Colour

Voltage

Approvals



Voltage

06 = 6VAC/DC

12 = 12VAC/DC

24 = 24VAC/DC

48 = 48VAC/DC

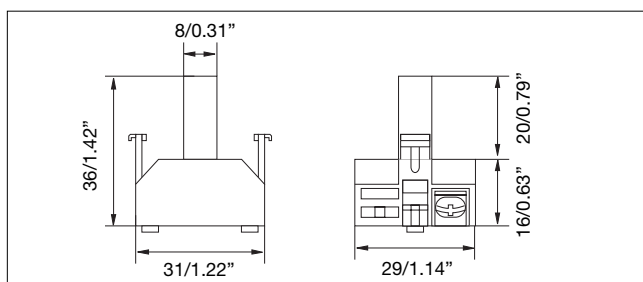
110 = 110VAC/DC

220D = 220VDC

220A = 220VAC

380A = 380VAC

Dimensions mm/inches



Colours

R = Red

W = Clear/White

B = Blue

Y = Yellow

G = Green

Technical data

Rated imp. withstand voltage U_{imp} 2500VAC 50Hz 1min.

Rated insulation Voltage U_i 500VAC

Allowable voltage fluctuation $\pm 20\%$

Continuous operating life $\geq 100.000h$

Ultrahigh brightness $\geq 100cd/m^2 (\geq 9.29ftc)$

Applying frequency 50-60Hz

Current consumption (AC/DC) $\leq 18mA$

Operating temperature -25 to +70°C (-13 to +158°F)

Storage temperature -30 to +80°C (-22 to +176°F)

Wiring Notes

- 1) Use 60°C or 75°C copper (CU) conductor and wire size range 18AWG, stranded or solid.
- 2) Terminal tightening torque 0.6Nm (5.3in.lb)
- 3) Recommended external fuse - listed or R/C fuses, Supplemental (JDYX, JDYX2) rated 3A maximum.

Panel Actuators and Indicators

Type PA2

Contact Block

CARLO GAVAZZI



- 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
- According to EN ISO 13850 (only NC slow action)
- 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)

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	-	
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	-	

Approvals



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)

Terminals

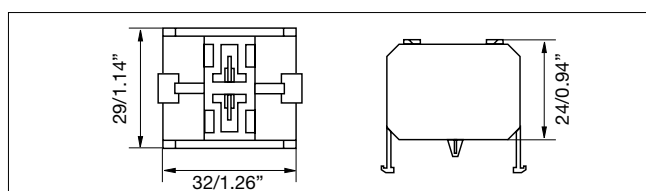
Screw terminals

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

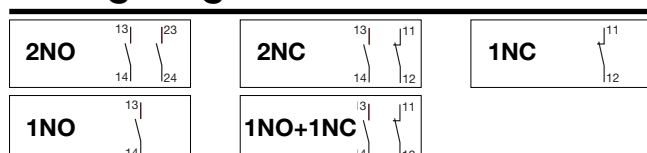
2 x 2.5mm² (0.004sq.inch)
 2 x 1.5mm² (0.002sq.inch)
 14 AWG @ 60°C or 75°C
 CU conductor
 1.2Nm (10.6in.lb.)

Terminal tightening torque

Dimensions mm/inches

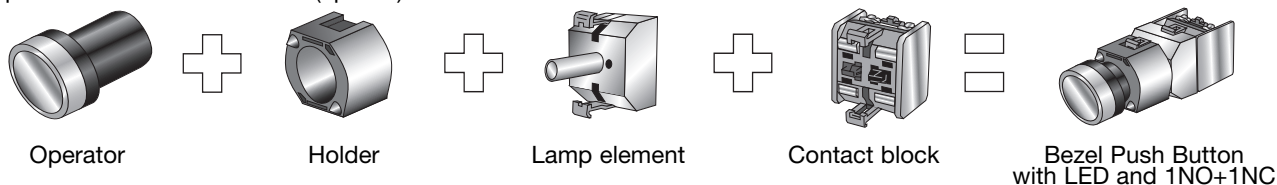


Wiring diagram

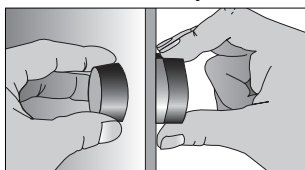


Assembling and Mounting

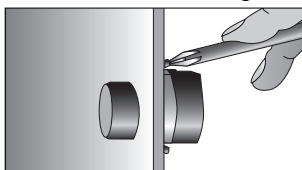
It come easy to get a complete product. Just to choose the operator, the holder, the lamp element if illuminated function is required and the contact block (up to 3).



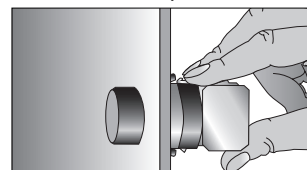
To install it, the only tool needed is a screwdriver. The same used to wiring the contact block can be used to fix the push-button.



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 Actuator



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

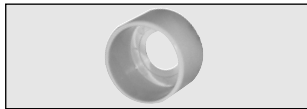


Label frame

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