

Panel Actuators and Indicators Type PL 22 Buzzer and Flashing Buzzer

CARLO GAVAZZI



- Ø 22mm (Ø0.87") dimension
- Buzzer
- Interrupted sound
- Flashing type
- AC and DC voltage
- cULus and CE
- IEC/EN 60947-5-1, IEC/EN 60073, IEC/EN 60529, UL 508



Product description

Pilot lights and Buzzer are panel mounted device assemblies consisting of the housing, an internal lamp or buzzer, terminals, and a cover. Applications include industrial

control panels of all types, equipment indicator panels, status alarm indicator. The buzzer volume is 95dB @ 10cm (3.94"), the current is 20mA.

Approvals



Technical data

Rated imp. withstand voltage U_{imp}	2500VAC 50Hz 1min.
Rated insulation Voltage U_i	500VAC
Allowable voltage fluctuation	±20%
Continuous operating life	≥100.000h
Ultrahigh brightness	≥100cd/m ² (≥9.29ftc)
Applying frequency	50-60Hz
Current consumption (AC/DC)	15-20mA
Sound volume	95dB @ 10cm (3.94")
Operating temperature	-25 to +70°C (-13 to +158°F)
Storage	-30 to +80°C (-22 to +176°F)
Degree of protection	IP 40

Ordering key

PL 22S BZ R 24*

Series

Dimension

Type

Colour

Voltage

* Not all configurations available – see page 6 for complete list

Dimension and style

22S = Ø22mm (Ø0.87") standard size

Types

BZ = Buzzer

FBZ= Flashing buzzer

Colours

R = Red only for FBZ type

K = Black only for BZ type

Voltages

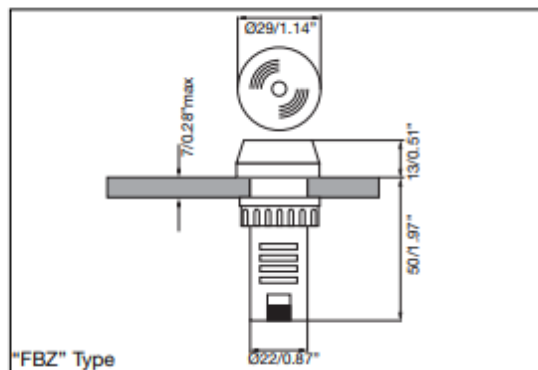
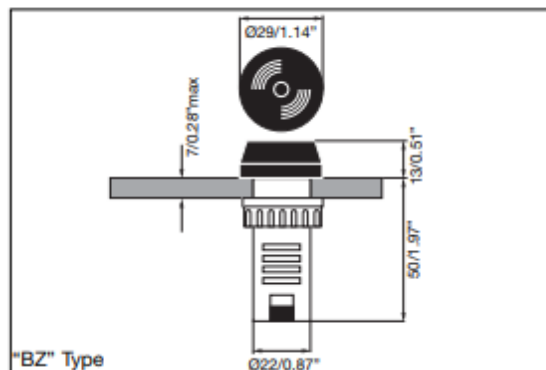
12 = 12VAC/DC

24 = 24VAC/DC

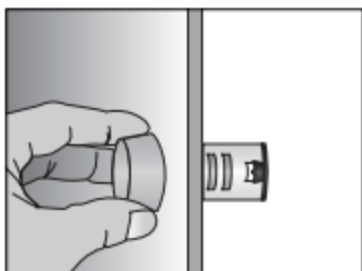
110 = 110VAC/DC

220A = 220VAC

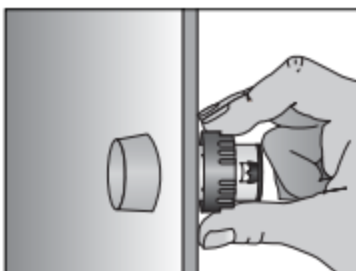
Dimensions mm/inches



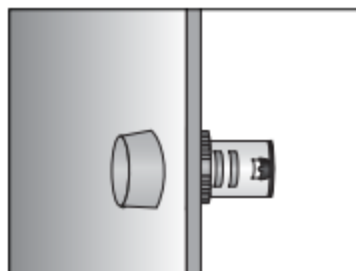
Mounting



Just insert the pilot light into the hole of the pannel.

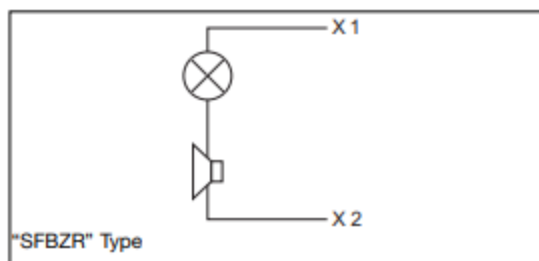
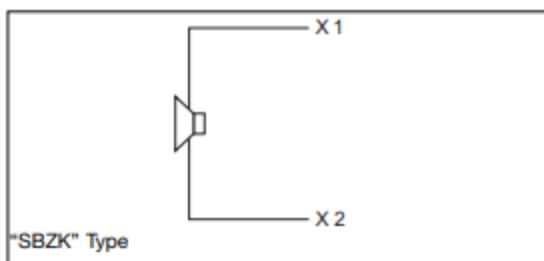


The pilot light will be secured at the back by the plastic nut



The pilot light has been installed.

Wiring Diagram

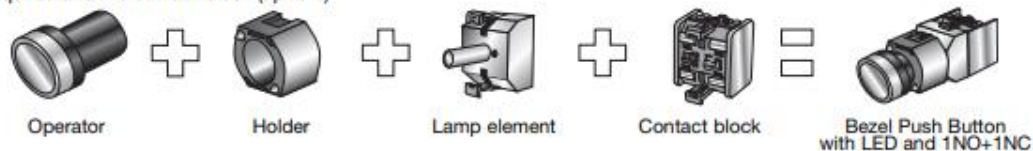


Wiring Notes

- 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.

Assembling and Mounting

It comes 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 nuts.



The contact block is snapped on.

Accessories for Panel Actuators



Sealing cover IP67

Always on the head of operators, Silicon rubber, waterproof and dust, IP67.

PA SEAL COV



Protection cover

Always on the head of button, prevent strike and mistaking operation. Lockable.

PC

PA PB COV



Mounting ring Ø22mm (0.87")

Installed on plastic panel to strengthen mounting.

FE

PA MR 22



Reducing ring for Pilot Light Ø22mm (0.87")

To mount the Ø22mm (0.87") pilot light into the hole for Ø25mm (0.98") or Ø30mm (1.18") of the panel.

ABS

Ø30mm/Ø1.18" PA RR 3



Fastening connector for Pilot Light Ø22mm (0.87")

Improve the quality of installation and reduce the time of installations.

PC

PA PL CONN



Label frame

Hang it on the push button or pilot light, for symbol or text explanation.

PC

10mm/0.39" PA LBF 11
18mm/0.71" PA LBF 18



Warning plate

For emergency stop push buttons. Thickness 1.5mm/0.059"

ABS

Ø60mm/Ø2.36" PA WP 6
Ø90mm/Ø3.54" PA WP 9



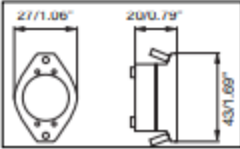
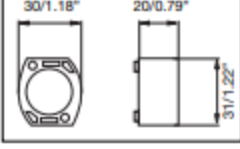
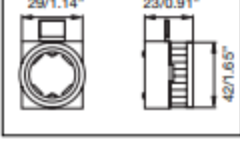
Panel hole cap Ø22mm (0.87")

For blocking up prepared or useless holes on the panels.

ABS

PA PHC 22

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 _____

* Not all configurations available – see page 6 for complete list

Approvals



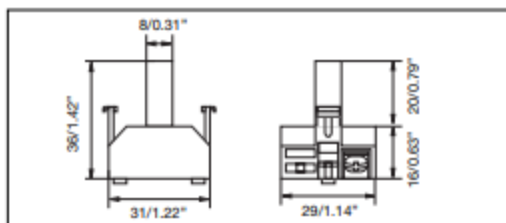
Colours

R = Red Y = Yellow
 W = Clear/White G = Green
 B = Blue

Voltage

12 = 12VAC/DC 110 = 110VAC/DC
 24 = 24VAC/DC 220A = 220VAC

Dimensions mm/inches



Technical data

Rated imp. withstand voltage U_{imp}	2500VAC 50Hz 1min.
Rated insulation Voltage U_i	500VAC
Allowable voltage fluctuation	±20%
Continuous operating life	≥100.000h
Ultrahigh brightness	≥100cd/m ² (≥9.29ftc)
Applying frequency	50-60Hz
Current consumption (AC/DC)	≤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

* Not all configurations available – see page 6 for complete list

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



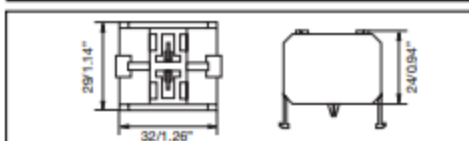
Technical data

Contact resistance	≤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 single-core wire	2 x 2.5mm ² (0.004sq.inch)
Max. section stranded wire	2 x 1.5mm ² (0.002sq.inch)
Copper conductor wire	14 AWG @ 60°C or 75°C
CU conductor	1.2Nm (10.6in.lb.)
Terminal tightening torque	

Dimensions mm/inches



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

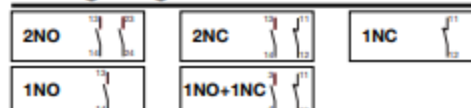
Contact characteristics

Contact Rating AC1	10A @ 250VAC
Contact Rating (acc. to IEC 60947-5-1)	AC15 DC13
	@ 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 -

Contact rating code designation	Terminal designation	Terminal test current Amperes	Maximum current, amperes (acc. to UL508)								Maximum volt-amperes
			120V		240V		480V		600V		
			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

Contact rating code designation	Terminal designation	Terminal test current Amperes	Maximum current, amperes (acc. to UL508)						Maximum make or break volt-amperes @ 300V or less
			125V		250V		301 to 600V		
			Make	Break	Make	Break	Make	Break	
Q600	2.5	0.55	0.55	0.27	0.27	0.10	69		
Q300	2.5	0.55	0.55	0.27	0.27	-	69		

Wiring diagram



AVAILABLE PORTFOLIO CONFIGURATIONS

Flush Round Push Buttons		Pilot Lights		I/O Push Buttons	
PB22BF0B	PB22BIF0Y	PL22CHLB110	PL22SFLG24	PB22SIO0RG	PB22SIOL0RG
PB22BF0G	PB22SF0B	PL22CHLB24	PL22SFLR110	Key Selector Switches	PB22SKRS21KL PB22SKRS21KR
PB22BF0K	PB22SF0G	PL22CHLG110	PL22SFLR24		
PB22BF0R	PB22SF0K	PL22CHLG24	PL22SFLW110		
PB22BF0W	PB22SF0R	PL22CHLR110	PL22SFLW24	Push Button Boxes	PBBOX1HBG PBBOX3HBY PBBOX1HBY PBBOX4HBG PBBOX2HBG PBBOX4HBY PBBOX2HBY PBBOX5HBG PBBOX3HBG
PB22BF0Y	PB22SF0Y	PL22CHLR24	PL22SFLY110		
PB22BIF0B	PB22SIF0G	PL22CHLW110	PL22SFLY24		
PB22BIF0G	PB22SIF0R	PL22CHLW24	PL22SHLG110	Lamp Element	PALAMPB110 PALAMPR24 PALAMPB24 PALAMPW110 PALAMPG110 PALAMPW12 PALAMPG220A PALAMPW24 PALAMPG24 PALAMPY110 PALAMPR110 PALAMPY24 PALAMPR220A
PB22BIF0R	PB22SIF1G	PL22CHLY110	PL22SHLG220A		
PB22BIF0W		PL22CHLY24	PL22SHLG24		
Extended Push Buttons		PL22SHLR110	PL22SHLR110		
		PL22SHLR12			
PB22BE0G	PB22BIE0Y	PL22SHLR220A			
PB22BE0K	PB22SIE0G	PL22SHLR24			
PB22BE0R	PB22SIE0R	PL22SHLW110			
PB22BIE0R		PL22SHLW24			
Red Emergency Stop Push Buttons		PL22SHLY110			
		PL22SHLY24			
PB22BEM41R	PB22SEM41R	PL22SLLG110			
PB22BEM61R	PB22SEM61R	PL22SLLG220A			
PB22BKEM41R		PL22SLLG24			
Mushroom Push Buttons		PL22SLLR110			
		PL22SLLR220A			
PB22BIM41R	PB22SM40K	PL22SLLR24			
PB22BM40G	PB22SM40R	PL22SLLW24			
PB22BM40R	PB22SM41G	PL22SLLY24			
PB22BM41R	PB22SM41R	PL22SRLR110			
PB22BM60R	PB22SPPM41R				
PB22SIM40R	PB22SPPM61R				
PB22SIM41R					
Buzzer and Flashing Buzzer		Short-Handle Selector Switches			
		PB22BSRS21K PB22SISRS21W			
		PB22BSRS22K PB22SISRS31G			
PL22SBZK110	PL22SFBZR110	PB22BSRS31K PB22SSRS21K			
PL22SBZK12	PL22SFBZR12	PB22BSRS33K PB22SSRS31K			
PL22SBZK220A	PL22SFBZR220A	PB22SISRS21R PB22SSRS32K			
PL22SBZK24	PL22SFBZR24				
Two Color Pilot Lights		Long-Handle Selector Switches			
		PB22BLRS21K PB22SLRS31K			
		PB22BLRS31K PB22SLRS32K			
PL22STCRG110	PL22STCRG24	PB22SLRS21K			
PL22STCRG220A					