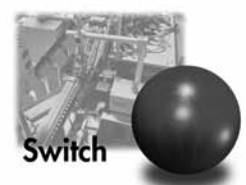**CARLO GAVAZZI**
Automation Components

CARLO GAVAZZI

Push Buttons
Selector Switches
& Pilot Lights

Switch

CARLO GAVAZZI

Push Buttons
Selector Switches
& Pilot Lights

Switch

Push Buttons

Series	Type PB Flush Round Push Buttons	Type PB Extended Push Buttons	Type PB Red Emergency Stop Push Buttons	Type PB Mushrooom Push Buttons
Drilling Diameter Ømm/inches	Ø22/0.87" - Ø30/1.18"	Ø22/0.87" - Ø30/1.18"	Ø22/0.87" - Ø30/1.18"	Ø22/0.87" - Ø30/1.18"
Dimensions H x Ømm/inches	37xØ29 / 1.46"xØ1.14" 39xØ35 / 1.54"xØ1.38"	42xØ29 / 1.65"xØ1.14" 44xØ35 / 1.73"xØ1.38"	49-51xØ40-Ø60 1.93"-2"xØ1.57"-Ø2.36"	49-51xØ40-Ø60 1.93"-2"xØ1.57"-Ø2.36"
General Specification				
Spring Returned	Yes	Yes	No	Yes
Maintained	Yes	Yes	Yes (turn to release)	Yes
Available colours	R, W, K, B, Y, G*	R, W, K, B, Y, G*	R*	R, Y, G, W, K*
Lamp add-on possibility	Yes	Yes	No	Yes
Approvals/Marks	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Detailed information				
On page	10	11	12	13

Series	Type PB Short-handle Rotary Switches	Type PB Long-handle Rotary Switches	Type PB Key Switches	Type PB I/O Push Button
Drilling Diameter Ømm/inches	Ø22/0.87" - Ø30/1.18"	Ø22/0.87" - Ø30/1.18"	Ø22/0.87" - Ø30/1.18"	Ø22/0.87"
Dimensions H x Ømm/inches	51xØ29 / 2"xØ1.14" 53xØ35 / 2.08"xØ1.38"	51xØ29 / 2"xØ1.14" 53xØ35 / 2.08"xØ1.38"	72 x Ø29 / 2.83"xØ1.14" 64 x Ø35 / 2.52"xØ1.38"	41x 29 x 54 x Ø29 1.61"x1.14"x2.13"xØ1.14"
General Specification				
Spring Returned	Yes	Yes	No	Yes
Two position	Yes	Yes	Yes	No
Three position	Yes	Yes	Yes	No
Available colours	R, Y, G, B, W, K*	R, K, Y, G*	Neutral (metal)	RG*
Lamp add-on possibility	Yes	No	No	Yes
Approvals/Marks	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Detailed information				
On page	14	15	16	17

* R=Red, W=Clear/White, K=Black (not for illuminated versions), B=Blue, Y= Yellow, G=Green

Specifications are subject to change without notice. Pictures are just an example. 310708

Pilot Lights

Series	Type PL High lens	Type PL Round Lens	Type PL Low Lens	Type PL Teeth Lens
Drilling Diameter Ømm/inches	Ø22/0.87"	Ø22/0.87"	Ø22/0.87"	Ø22/0.87"
Dimensions H x Ømm/inches	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"	Ø29 x 41**/54 Ø1.14" x 1.61"**/2.13"	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"
Colours	R, W, B, Y, G*	R, W, B, Y, G*	R, W, B, Y, G*	R, W, B, Y, G*
Light source	LED	LED	LED	LED
Brightness	≥100cd/m² (≥9.29ftc)	≥100cd/m² (≥9.29ftc)	≥100cd/m² (≥9.29ftc)	≥100cd/m² (≥9.29ftc)
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Voltage	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC
Detailed information On page	20	20	20	20

Series	Type PL Flash Light	Type PL Two Colours	Type PL Flashing Buzzer	Type PL Buzzer
Drilling Diameter Ømm/inches	Ø22/0.87"	Ø22/0.87"	Ø22/0.87"	Ø22/0.87"
Dimensions H x Ømm/inches	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"	Ø29 x 52**/67 Ø1.14" x 2.05"**/2.64"
Colours	R, W, B, Y, G*	RG*	R*	K*
Light source	LED	LED	LED	-
Brightness / Sound volume	≥100cd/m² (≥9.29ftc)	≥100cd/m² (≥9.29ftc)	≥100cd/m² (≥9.29ftc)	80dB @ 10cm (3.94")
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Voltage	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC	6VAC/DC 12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 220VDC - 220VAC 380VAC
Detailed information On page	20	21	22	22

* R=Red, W=Clear/White, K=Black (not for illuminated versions), B=Blue, Y= Yellow, G=Green   ** Compact Version

Specifications are subject to change without notice. Pictures are just an example. 310708

The Push Buttons and The Selector Switches

Carlo Gavazzi has developped a new range of push buttons, selector switches and pilot lights in order to complete own offer on automation market and give more solutions to own customers.
Push button switches are mechanical switches that are pushed down to open or to close the electric contacts.
They are mostly used to start/stop electric circuits/devices like lamps, motors, etc...
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. The switch function can be maintained or

spring return. In a maintained the actuator stays in thrown position (on-off). In a spring return the switch must be held in position; it reverts to normal position when actuating force is removed.
Different models of operators are available like push-button (also illuminated type), mushroom push-button, red emergency stop push-button, key push-button, selector switch with two or three positions …
… to meet most of the markets and the customers needs.
They are available with a various selection of colours (6) and a wide range of supply voltages (from 6V to 380V).
The screws (+,- Pozidrive 2) of terminals are

dispatched open to facilitate the work of wiring that can also be done separately, before the contact block is snapped on the holder. Besides, Carlo Gavazzi has developped the contact block with unloseable screws system, so it is impossible to lose screw while unscrewing. The illuminated functions are made by high-brightness pure colour LED. It is a guarantee of more efficiency and reliability.
Infact, the LED technology reach over than 100.000 hours of service life and the power consumption is lower than filament bulb type. The degree of protections is IP65. It allows to install them also in tough environments e.g. wet or dusty conditions.

Buttons style and mounting type

This new range has been developped, thinking to the needs of the installations, with three different styles

of shape of push-buttons and three different types of mounting. By combining the styles and the types of

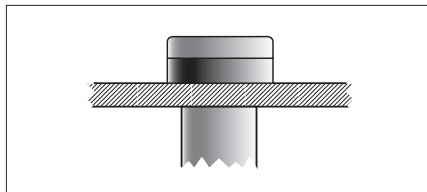mounting, it is possible to obtain up to 9 different versions for the same product.

S type operator
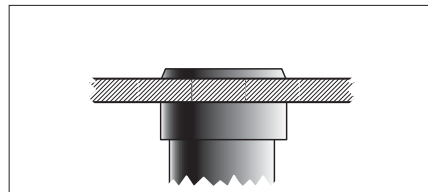It is standard style Ø22 (for panel hole 22mm (0.87")): black plastic head
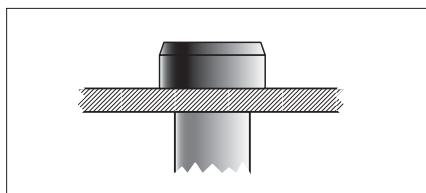
B type operator
It is bezel style Ø22 (for panel hole 22mm (0.87")): black plastic head with metal plated circular bezel
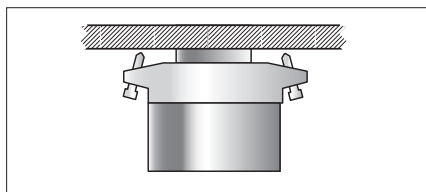
F type operator
It is flush style Ø30 (for panel hole 30mm (1.18")): black plastic head with metal plated circular bezel for flush mounting

Three different types of mounting are available:

M type holder
It is metal mounting base: installation and fixing are made by diagonal screws; so it is on the safe side.

P type holder
It is plastic mounting base: the middle base's material is high strength PBT plastic. The straight screws are used for installation.
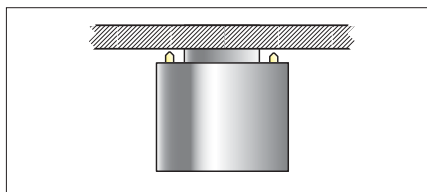
N type holder
It is nut mounting base: using nut for clamping, so it makes installation easily and reduce work intensity by big percentages
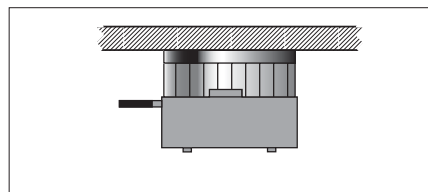
The contact block

The contact block is the switching element equipped with 2 indipendent electric contacts. 10 different version of contact blocks are available to meet the needs of the installations and of the customers.
Pole and throw configurations can be single pole single throw (SPST) or double pole single throw (DPST). SPST is a switch that makes or breaks the connection of a

single conductor in a single branch circuit. DPST is a switch that makes or breaks the connection of two circuit conductors in a single branch circuit. A normally open (NO) switch has contacts that are open or disconnected in their unactuated (normal) position. A normally closed (NC) switch has contacts that are closed or connected in their unactuated (normal) position.

They are snap or slow action types with positive opening of NC contact type. The contact rating of 10A @ 250V AC1 allows to reach high operating performance.
The type of the contact is cleary identified by the colour (red for normally closed and green for normally open).

Snap Action	Slow Action	Contact Type
PA2010/1	PA2010/2	**1NC**
PA2100/1	PA2100/2	**1NO**
PA2020/1	PA2020/2	**2NC**
PA2200/1	PA2200/2	**2NO**
PA2110/1	PA2110/2	**1NO+1NC**

Specifications are subject to change without notice. Pictures are just an example. 310708

Simple to choose and to install

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

| Operator | Holder | Lamp element (if required) | Contact block | Bezel Push Button with LED and 1NO+1NC |
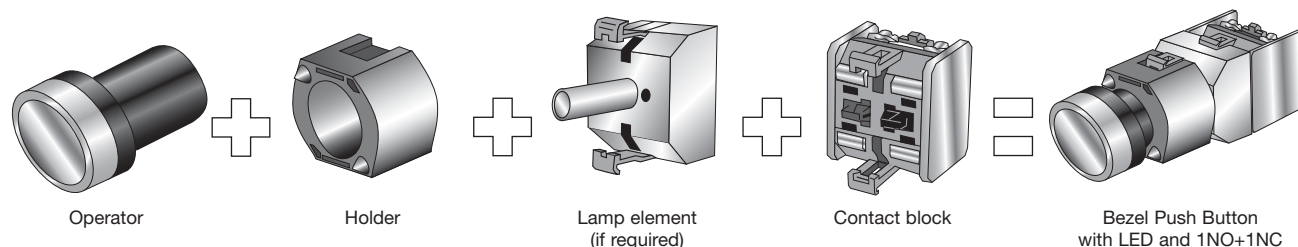
The only tool needed is a screwdriver. The same used to wiring the contact block can be used to fix the push-button.
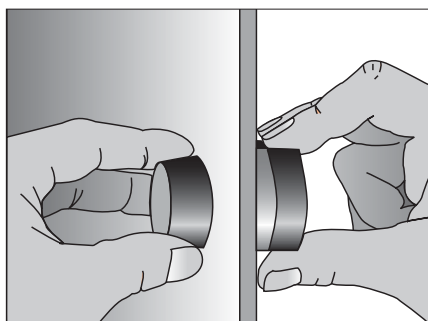
The operator will be inserted into the panel.
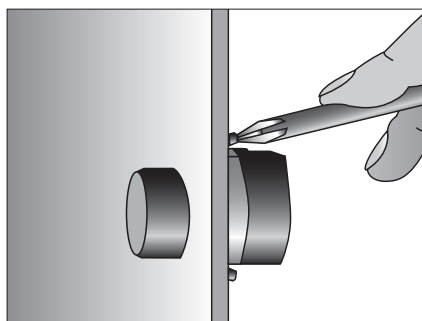
The holder will be secured at the back by two screws or nut.
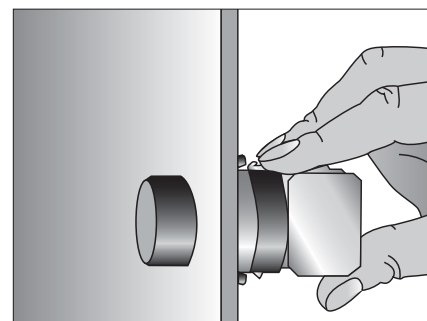
The contact block is snapped on.

The Pilot Lights

The main function of a pilot light is to signalize when an event occurs or to indicate a state. For example, the red light is normally used to indicate that there is voltage on the electrical installation or equipment.
Only one code is enough to choose the product. The LED is delivered already installed, so you should only select the rating voltage and the colour.

The source of light is LED. It gives an optimum perception due to the ideal colour rendering. Beside, it is reliable and cost-saving due to its long lifetime.
All with dimension of Ø22 (for panel hole 22mm (0.87")), they offer different solutions, from the shape of the lens (high, low, rounded, teeth profile) to the type of functions (light, flashing, two-color, buzzer). Different rating voltage are available, either

in AC or in DC, in order to meet all the requirement of the market. A wide selection of colours (red, green, yellow, white and blue) allows to choose the right colour for the right function.
The pilot light can be easily and safely assembled by one person with just a few movements of the hand.
The installations is simply made by plastic nut.

Simple to install
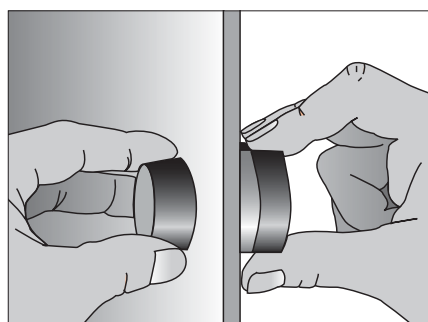
Just to insert the pilot light into the hole of the pannel.
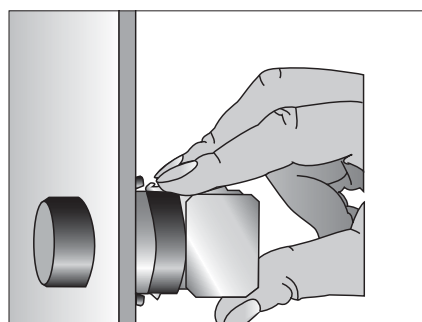
The pilot light will be secured at the back by the plastic nut
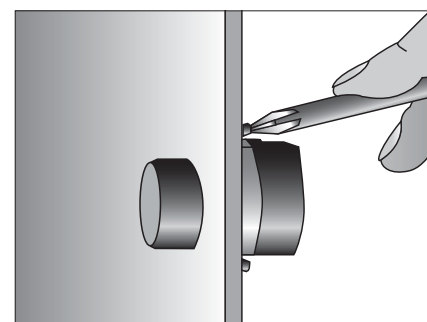
The pilot light has been installed.

Specifications are subject to change without notice. Pictures are just an example. 310708

5

Specifications

International Specifications
The International Electrotechnical Commission, IEC, which is part of the International Standars Organization, ISO, publishes IEC publications which act as a basis for the world market.

European Specifications
The European Committee for Electrotechnical Standardisation (CENELEC), grouping 18 European countries, publishes EN standards for low voltage industrial apparatus.
These European standards differ very little from IEC international standards and use a similar numbering system.
The same is true of national standards. Contradicting national standards are

withdrawn.
Harmonised European Specifications
The European Committees for Standardisation (CEN and CENELEC), grouping 18 European countries, publish EN standards relating to safety of machinery.

Specifications in Canada and the USA
These are equivalent, but differ markedly from IEC, UTE, VDE and BS specifications.
UL   Underwriters Laboratories (USA)
CSA   Canadian Standards Association (Canada)
Remark concerning the label issued by the UL (USA). Two levels of acceptance between devices must be distinguished.
"Recognized" Authorised to be included in

equipment, if the equipment in question has been entirely mounted and wired by qualified personnel. They are not valid for use as "General purpose products" as their possibilities are limited.
They bear the mark:

"Listed"   Authorised to be included in equipment and for separate sale are "General purpose products" components in the USA.
They bear the mark :

European Directives

The guarantee of free movement of goods within the European Community assumes elimination of any regulatory differences between the member states. European Directives set up common rules that are included in the legislation of each state while contracditory regulations are cancelled.

There are three main directives :

•   **Low Voltage Directive 73/23/EEC**, amended by   **Directive 93/68/EEC**

concerning electrical equipment from 50 to 1000 V a.c. and from 75 to 1500 V d.c. This specifies that compliance with the requirements that is sets out **is acquired** once the equipment conforms to the standards harmonised at European level.

•   **Machine Directives – 89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC** – defining main safety and health requirements concerning design and manufacture of the machines and other

equipment including safety components in European Union countries.

•   **Electromagnetic Compatibility Directive   89/336/EEC**, amended by **Directive   92/31/EEC** and **Directive 93/68/EEC** concerning all electrical devices likely to create electromagnetic disturbances.

Approvals

Technical Data

Rated capacity acc. to IEC 60947-5-1	AC-15	DC-13
	220V/6A	24V/6A
	380V/4A	48V/3A
	500V/2.5A	110V/1A
	660V/2A	220V/0.5A
Rated capacity acc. to UL 508		
Snap action type	B600	Q600
NO slow action type	A600	Q600
NC slow action type	A600	Q300
Contact resistance	$\leq$50mΩ (hard sliver contact)	
Rated Impulse withstand Voltage U$_{imp}$	2500VAC 50Hz 1min.	
Mechanical life	Normal button $\geq$3x10^6 cycles	
	Selector $\geq$30x10^4 cycles	
	Key button $\geq$5x10^4 cycles	
	Emergency button $\geq$5x10^4 cycles	
Electrical life	$\geq$30x10^4 cycles	
Rated thermal current I$_{th}$	10A	
Rated insulation voltage U$_i$	660VAC/DC (acc. to IEC 60947-5-1)	
	600VAC/DC (acc. to UL508)	
Operating temperature	-25 ~ +70°C (-13 ~ +158°F)	
Storage temperature	-30 ~ +80°C (-22 ~ +176°F)	

Standard

IEC/EN 60073
IEC/EN 60529
IEC/EN 60947-1
IEC/EN 60947-5-1, 60947-5-5
UL 508
EN 418

Parts Material

Peripheral of actuator	AL
Holder	Zn or PBT. PC
Actuator	Pa
Contact	AgNi
Switch housing	PC
Contact parts	Cu

Specifications are subject to change without notice. Pictures are just an example. 310708

Ordering Key

Series
PB = Push Button (or Selector switch)
PL = Pilot Light

Dimension and Style
22S = Ø 22mm (0.87") Standard design
22B = Ø 22mm (0.87") Bezel design (only for Push Buttons)
30F = Ø 30mm (1.18") Flush design (only for Push Buttons)
22C = Ø 22mm (0.87") Compact design (only for Pilot light)

Push Buttons and Selector Switches types
F = Flush round
E = Extended round
IF = Illuminated[1] Flush round
IE = Illuminated[1] Extended round
M4 = Mushroom Ø40mm (Ø1.57")
M6 = Mushroom Ø60mm (Ø2.36")
IM4 = Illuminated[1] Mushroom Ø40mm (Ø1.57")
IM6 = Illuminated[1] Mushroom Ø60mm (Ø2.36")
EM4 = Red Emergency Stop Ø40mm (Ø1.57")
EM6 = Red Emergency Stop Ø60mm (Ø2.36")
KM4 = Key-Reset Emergency Stop Red Ø40mm (Ø1.57")
SRS = Short-handle Selector Switch
ISRS = Illuminated[1] Short-handle Selector Switch (only action 21 or 31)
LRS = Long-handle Selector Switch
KRS = Key Selector Switch (only action 21 or 31)
IO = IO Push Button (ON-OFF type)
IOL = IO Push Button (ON-OFF type) illuminated[1]

Pilot Light types
HL = High Lens
RL = Round Lens
LL = Low Lens
TC = Two Colours
TL = Teeth Lens
BZ = Buzzer
FBZ = Flashing Buzzer
FL = Flash Light

Actions
Nil = Only for Pilot Light
0 = Spring return (not for red emergency stop)
1 = Maintained
21 = Two positions L⟍R
22 = Two positions L↗C
23 = Two positions C↖R
31 = Three positions L⟍C⟍R
32 = Three positions L↗C↖R
33 = Three positions L↗C⟍R
34 = Three positions L⟍C↖R

Colours (only Red for emergency stop types)
R = Red
G = Green
Y = Yellow
W = Clear/White
B = Blue
K = Black (not for illuminated versions)

Voltages (only for Pilot Light)
06 = 6VAC / DC
12 = 12VAC / DC
24 = 24VAC / DC
48 = 48VAC / DC
110 = 110VAC / DC
220D = 220VDC
220A = 220VAC
380A = 380VAC

Key extraction position (only for Key Selector Switch)
KL = on the left position
KC = on the center position
KR = on the right position

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[1] = Light function is obtained by the lamp element pg.19   ↗ = Spring return   ☐ ² = position available only for Pilot Light or Key extraction position

Specifications are subject to change without notice. Pictures are just an example. 310708

Quick selection

▲ Actions

0 = Spring Return   **32***= Three pos. L↗C↘R
1 = Maintained   **33***= Three pos. L↗C R
21 = Two pos. L R   **34***= Three pos. L C↘R
22*= Two pos. L↗C
23*= Two pos. C↘R   ***** : not for illuminated
31 = Three pos. L C R ↗ : spring return

● Colours

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

▼ Voltages

06 = 6VAC/DC   **110** = 110VAC/DC
12 = 12VAC/DC   **220D** = 220VDC
24 = 24VAC/DC   **220A** = 220VAC
48 = 48VAC/DC   **380A** = 380VAC

Flush round push buttons

PB 22S F ▲ ●
PB 22S IF ▲ ●

PB 22B F ▲ ●
PB 22B IF ▲ ●

PB 30F F ▲ ●
PB 30F IF ▲ ●

Extended push buttons

PB 22S E ▲ ●
PB 22S IE ▲ ●

PB 22B E ▲ ●
PB 22B IE ▲ ●

PB 30F E ▲ ●
PB 30F IE ▲ ●

Mushroom push buttons

PB 22S M4 ▲ ●   PB 22S IM4 ▲ ●
PB 22S M6 ▲ ●   PB 22S IM6 ▲ ●

PB 22B M4 ▲ ●   PB 22B IM4 ▲ ●
PB 22B M6 ▲ ●   PB 22B IM6 ▲ ●

PB 30F M4 ▲ ●   PB 30F IM4 ▲ ●
PB 30F M4 ▲ ●   PB 30F IM4 ▲ ●

Emergency mushroom push buttons

PB 22S EM4 1R   PB 22S KM4 1R
PB 22S EM6 1R   PB 22S KM6 1R

PB 22B EM4 1R   PB 22B KM4 1R
PB 22B EM6 1R   PB 22B KM6 1R

PB 30F EM4 1R   PB 30F KM4 1R
PB 30F EM6 1R   PB 30F KM6 1R

Short-handle selector switches

PB 22S SRS ▲ ●
PB 22S ISRS ▲ ●

PB 22B SRS ▲ ●
PB 22B ISRS ▲ ●

PB 30F SRS ▲ ●
PB 30F ISRS ▲ ●

Long-handle Selector Switches

PB 22S LRS ▲ ●

PB 22B LRS ▲ ●

PB 30F LRS ▲ ●

Specifications are subject to change without notice. Pictures are just an example. 310708

Quick selection

▲ Actions

0	= Spring Return	32*	= Three pos. L↗C↗R
1	= Maintained	33*	= Three pos. L↗C R
21	= Two pos. L R	34*	= Three pos. L C↗R
22*	= Two pos. L↗C		
23*	= Two pos. C↘R	*	: not for illuminated
31	= Three pos. L C R	↗	: spring return

● Colours

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

▼ Voltages

06	= 6VAC/DC	110	= 110VAC/DC
12	= 12VAC/DC	220D	= 220VDC
24	= 24VAC/DC	220A	= 220VAC
48	= 48VAC/DC	380A	= 380VAC

Key selector switches

PB 30F KRS ▲ KL
PB 30F KRS ▲ KC
PB 30F KRS ▲ KR

PB 22S KRS ▲ KL
PB 22S KRS ▲ KC
PB 22S KRS ▲ KR

I/O push buttons

PB 22S IO   0RG
PB 22S IOL 0RG

Metal holder

PB MB M

Plastic holder

PB MB P

Nut holder

PB MB N

Lamp element

PA LAMP ● ▼

Contact blocks

PA2010/1	PA2010/2
PA2100/1	PA2100/2
PA2020/1	PA2020/2
PA2200/1	PA2200/2
PA2110/1	PA2110/2

Example of a complete product

PB22BIF 0G + PBMBP +
PALAMP G24 + PA2110/1

High lens pilot light

PL 22C HL ● ▼   PL 22S HL ● ▼

Round lens pilot light

PL 22C RL ● ▼   PL 22S RL ● ▼

Low lens pilot light

PL 22C LL ● ▼   PL 22S LL ● ▼

Teeth lens pilot light

PL 22C TL ● ▼   PL 22S TL ● ▼

Flash lens pilot light

PL 22S FL ● ▼

Two colours pilot light

PL 22S TC RG ▼

Flashing buzzer

PL 22S FBZ R ▼

Buzzer

PL 22S BZ K ▼

Panel Actuators and Indicators
Type PB
Flush Round Push Buttons

PB 22S

PB 22B

PB 30F

CARLO GAVAZZI

- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush style
- Self-hold or spring return
- Button colour choice
- Illuminated version made by LED
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529

Product description

Pushbutton switches are mechanical switches that are pushed down to open or to close the electric contacts. They are mostly used to start/stop electric circuits or devices like lamps, motors, etc.
They should be ordered in parts (operator + holder + contact block) and installed in an enclosure.

Approvals

Types

F = Flush round
IF = Illuminated[1] flush round

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

Colours

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

Ordering key

PB 22S IF 0 R

Series
Dimension and Style
Type
Action
Colour

Dimensions and styles

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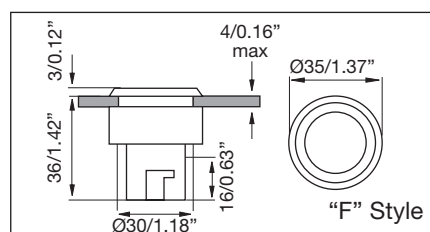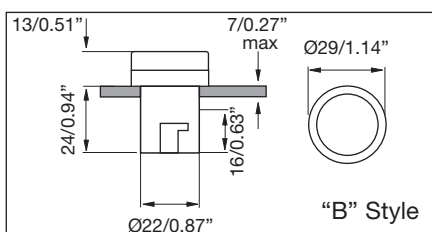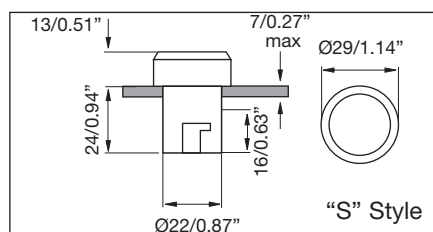**22B** = Ø22mm (Ø0.87") Bezel style
30F = Ø30mm (Ø1.18") Flush style

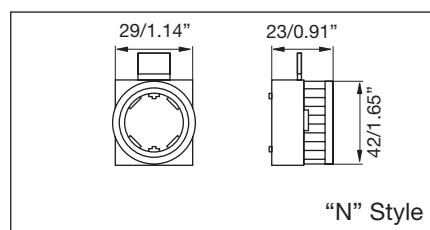## Actions

0 = Spring return
1 = Maintained

General data

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥3 x 10^6 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

"S" Style

"B" Style

"F" Style

Dimensions - Holders mm/inches

"P" Style

"M" Style

"N" Style

Specifications are subject to change without notice. Pictures are just an example. For special features and/or custumization, please ask to our sales network. 310708

Panel Actuators and Indicators
Type PB
Extended Push Buttons

PB 22S

PB 22B

PB 30F

- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush style
- Self-hold or spring return
- Button colour choice
- Illuminated version made by LED
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529

Product description

Pushbutton switches are mechanical switches that are pushed down to open or to close the electric contacts. They are mostly used to start/stop electric circuits or devices like lamps, motors, etc.
They should be ordered in parts (operator + holder + contact block) and installed in an enclosure.

Approvals

Types

E = Extended round
IE = Illuminated[1] extended round

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

Colours

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

Ordering key

PB 22S IE 0 R

Series
Dimension and Style
Type
Action
Colour

Dimensions and styles

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

Actions

0 = Spring return
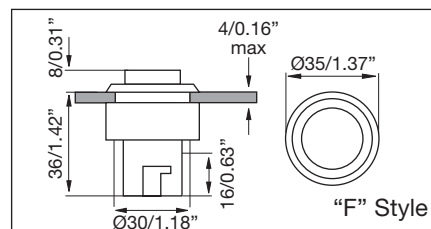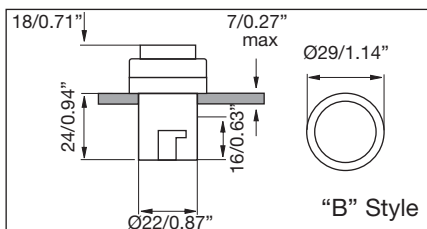**1** = Maintained

General data

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥3 x 10⁶ 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

"S" Style

"B" Style

"F" Style

Dimensions - Holders mm/inches

"P" Style

"M" Style

"N" Style

Panel Actuators and Indicators
Type PB
Red Emergency Stop Push Buttons

CARLO GAVAZZI

PB 22S

PB 22B

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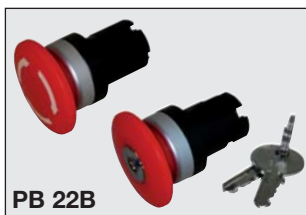
- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush style
- Mushroom shape
- Push to lock, turn clockwise to reset
- Push to lock, unlock by turning the key
- Ø 40mm (Ø1.57") or Ø 60mm (Ø2.36") head
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529
- EN 418
- IEC/EN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

Dimensions and styles

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

Types

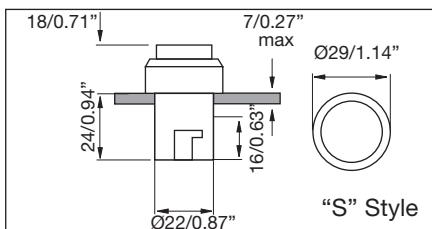**EM4** = Red emergency stop Ø40mm (Ø1.57")
EM6 = Red emergency stop Ø60mm (Ø2.36")
KM4 = Red key-reset emergency stop Ø40mm (Ø1.57")

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

"S" Style

"B" Style

"F" Style

Dimensions - Holders mm/inches

"P" Style

"M" Style

"N" Style

Specifications are subject to change without notice. Pictures are just an example. For special features and/or custumization, please ask to our sales network. 310708

Panel Actuators and Indicators
Type PB
Mushroom Push Buttons

PB 22S

PB 22B

PB 30F

- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush style
- Mushroom shape
- Ø 40mm (Ø1.57") or Ø 60mm (Ø2.36") head
- Self-hold or spring return
- Illuminated version made by LED
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC/EN 60073, IEC/EN 60529

Product description

Mushroom push button switches are mechanical switches that are pushed down to open or to close the electric contacts.

They are mostly used to start/stop electric circuits or devices like lamps, motors, etc. They should be ordered in parts (operator + holder + contact block) and installed in an enclosure.

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

Types

M4 = Mushroom Ø40mm (Ø1.57")
M6 = Mushroom Ø60mm (Ø2.36")
IM4 = Illuminated[1] mushroom Ø40mm (Ø1.57")
IM6 = Illuminated[1] mushroom Ø60mm (Ø2.36")
[1] = Light function is obtained by the lamp element pg.19

Colours

R = Red
W = Clear/White (only illuminated)
K = Black (only not illuminated)

Y = Yellow
G = Green

Ordering key

PB 22S IM4 0 R

Series
Dimension and Style
Type
Action
Colour

Dimensions and styles

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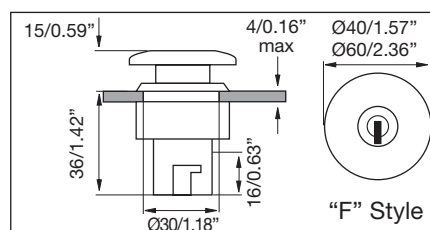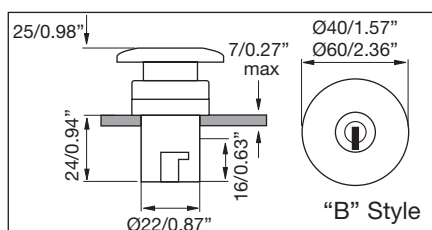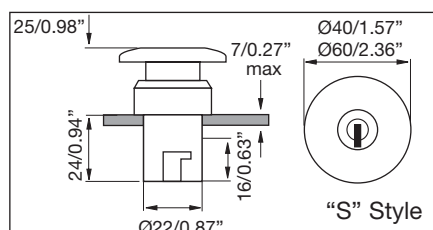**22B =** Ø22mm (Ø0.87") Bezel style
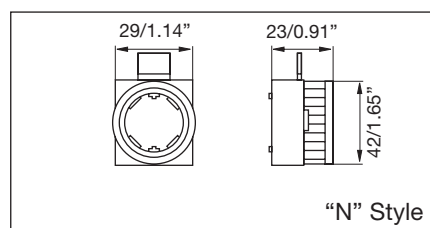**30F =** Ø30mm (Ø1.18") Flush style

Actions

0 = Spring return
1 = Maintained
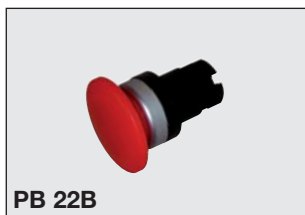
General data

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥3 x 10^6 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

25/0.98" 7/0.27" max Ø40/1.57" Ø60/2.36" 24/0.94" 16/0.63" Ø22/0.87" "S" Style

25/0.98" 7/0.27" max Ø40/1.57" Ø60/2.36" 24/0.94" 16/0.63" Ø22/0.87" "B" Style

15/0.59" 4/0.16" max Ø40/1.57" Ø60/2.36" 36/1.42" 16/0.63" Ø30/1.18" "F" Style

Dimensions - Holders mm/inches

30/1.18" 20/0.79" 31/1.22" "P" Style

27/1.06" 20/0.79" 43/1.69" "M" Style

29/1.14" 23/0.91" 42/1.65" "N" Style

Panel Actuators and Indicators
Type PB
Short-handle Selector Switches

PB 22S

PB 22B

PB 30F

- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush 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.

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

Types

SRS = Short-handle selector switch

ISRS = Illuminated[1] short-handle selector switch

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

Colours

R = Red

W = Clear/White (only illuminated)

K = Black (only not illuminated)

B = Blue (only illuminated)

Y = Yellow

G = Green

Ordering key

PB 22S ISRS 32 R

Series
Dimension and Style
Type
Action
Colour

Dimensions and styles

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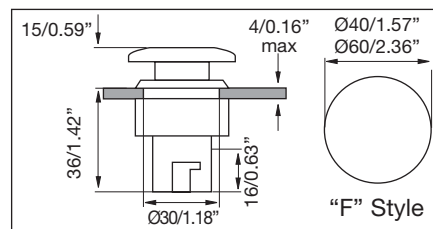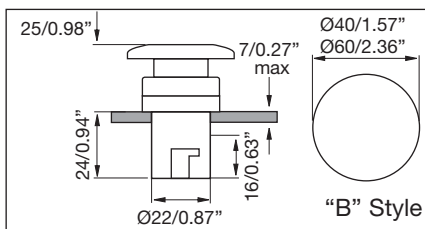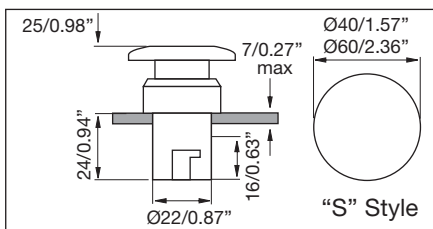**30F** = Ø30mm (Ø1.18") Flush style

Actions (the arrows indicate the spring return function)

21 = Two positions L R
22 = Two positions L↰ C
  not for illuminated
23 = Two positions C ↱R
  not for illuminated
31 = Three positions L C R

32 = Three positions L↰ C ↱R
  not for illuminated
33 = Three positions L↰ C R
  not for illuminated
34 = Three positions L C ↱R
  not for illuminated

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

27/1.06"   7/0.27" max   Ø29/1.14"   24/0.94"   16/0.63"   Ø22/Ø0.87"   "S" Style

27/1.06"   7/0.27" max   Ø29/1.14"   24/0.94"   16/0.63"   Ø22/Ø0.87"   "B" Style

17/0.67"   4/0.16" max   Ø35/1.37"   36/1.42"   16/0.63"   Ø30/1.18"   "F" Style

Dimensions - Holders mm/inches

30/1.18"   20/0.79"   31/1.22"   "P" Style

27/1.06"   20/0.79"   43/1.69"   "M" Style

29/1.14"   23/0.91"   42/1.65"   "N" Style
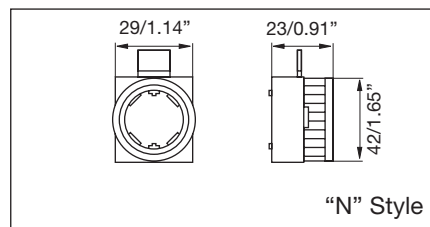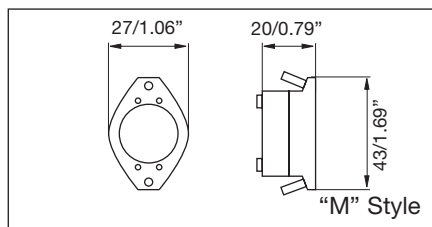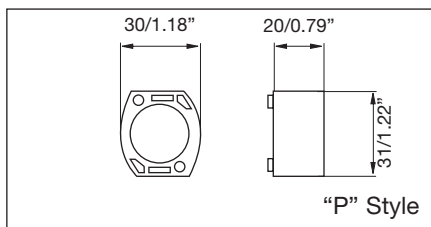
Panel Actuators and Indicators
Type PB
Long-handle Selector Switches

CARLO GAVAZZI

PB 22S

PB 22B

PB 30F

- Ø 22mm (Ø0.87") Standard and bezel style
- Ø 30mm (Ø1.18") Flush style
- Self-hold or spring return
- Knob colour choice
- Two and three positions
- 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.

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

Type

LRS = Long-handle selector switch

Colours

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

Ordering key

PB 22S LRS 32 R

Series
Dimension and Style
Type
Action
Colour

Dimensions and styles

22S = Ø22mm (Ø0.87") Standard style
22B = Ø22mm (Ø0.87") Bezel style
30F = Ø30mm (Ø1.18") Flush style
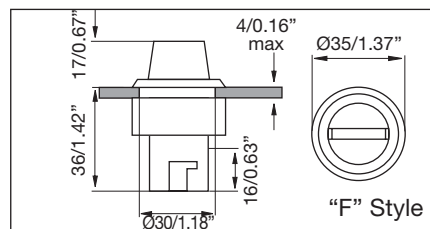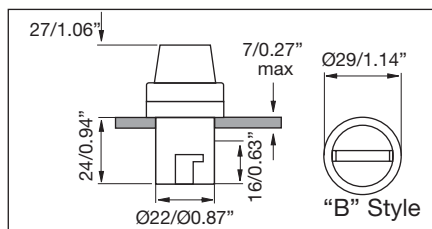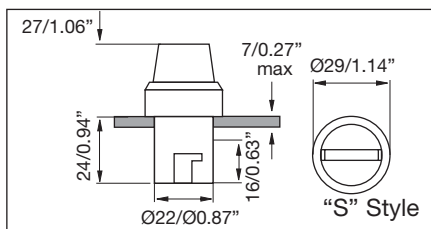
Actions (the arrows indicate the spring return function)

21 = Two positions L   R   **32** = Three positions L C R
22 = Two positions L   C   **33** = Three positions L C R
23 = Two positions C   R   **34** = Three positions L C R
31 = Three positions L C R

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

"S" Style

"B" Style

"F" Style

Dimensions - Holders mm/inches

"P" Style

"M" Style

"N" Style
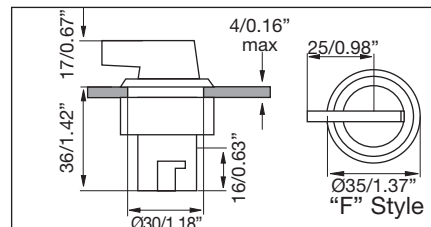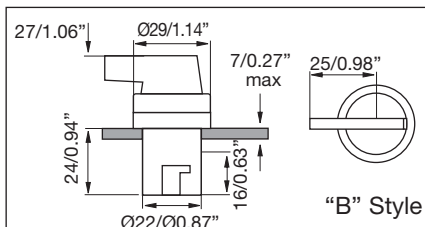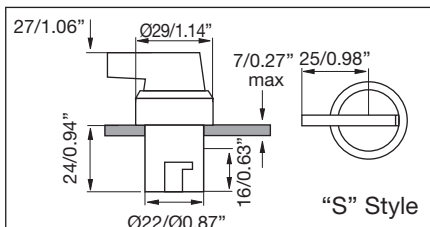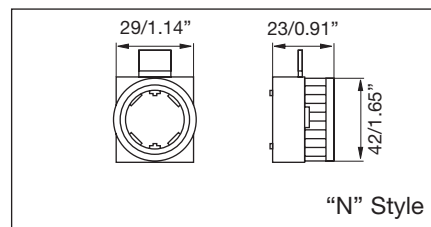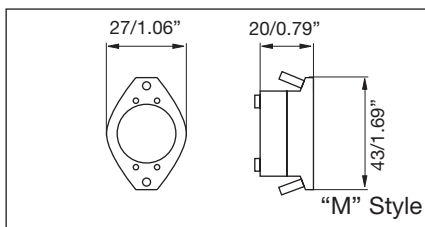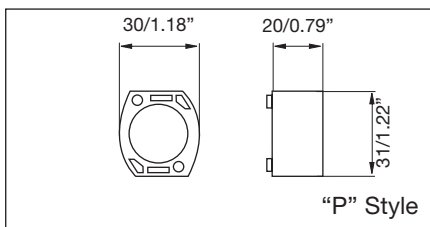
Panel Actuators and Indicators
Type PB
Key Selector Switches

PB 22S

PB 30F

- Ø 22mm (Ø0.87") with Standard key
- Ø 30mm (Ø1.18") with Triangle key
- Two and three positions
- cULus and CE
- IEC/EN 60947-5-1, UL 508

Product description

Key selector switches are mechanical switches that can be turned right, center or left to open or to close the electric contacts. Mostly used to switch between two/three circuits. When the key is pulled-out no any other action can be done.

They should be ordered in parts (operator + holder + contact block) and installed in an enclosure.

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

Types

KRS = Key selector switch

Key extraction position

KL = on the left position
KC = on the center position
KR = on the right position

Ordering key   PB 22S KRS 31 KC

Series
Dimension and Style
Type
Action
Key extraction position

Dimensions and styles

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

Actions

21 = Two positions L   R
31 = Three positions L   C   R

General data

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥5 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

21/0.83"   7/0.27" max   Ø29/1.14"
51/2"   16/0.63"
Ø22/0.87"
"22SKRS" Type

3/0.12"   4/0.16" max   Ø35/1.37"
61/2.40"   16/0.63"
Ø30/1.18"
"30FKRS" Type

Dimensions - Holders mm/inches

30/1.18"   20/0.79"
31/1.22"
"P" Style

27/1.06"   20/0.79"
43/1.69"
"M" Style

29/1.14"   23/0.91"
42/1.65"
"N" Style
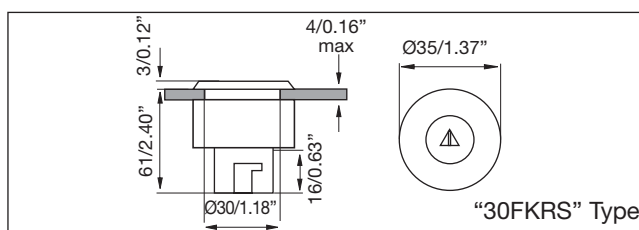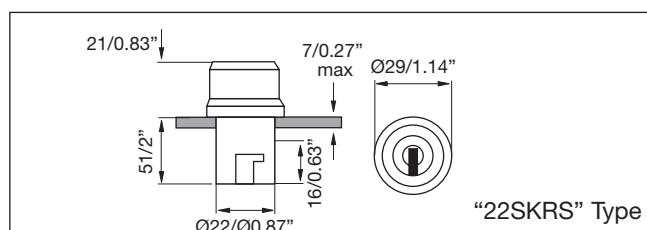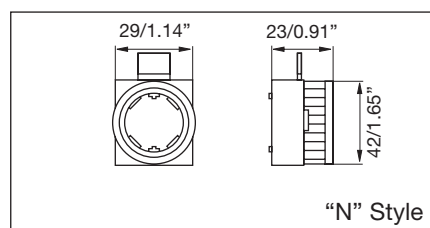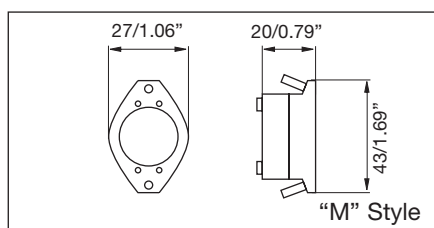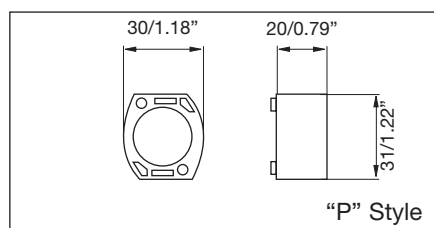
Panel Actuators and Indicators
Type PB22
I/O Push Buttons

PB 22S IO - 0RG

PB 22S IOL - 0RG

- Ø 22mm (Ø0.87") Standard style
- Compact design
- ON/OFF function
- I red and O green
- Yellow Light made by LED
- Spring return
- cULus and CE
- IEC/EN 60947-5-1, UL 508, IEC 73, IEC/EN 60529

Product description

I/O push button switches are mechanical switches that are pushed down to open or to close the electric contacts. They are mostly used to start/stop electric circuits/devices like lamps, motors, etc. They should be ordered in parts (operator + holder + contact block) and installed in an enclosure.

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

Types

IO = IO Push Button (ON-OFF type)
IOL = IO Push Button (ON-OFF type) illuminated[1]

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

Colour

RG = Red and Green

Ordering key

| PB 22S IOL 0 RG |

Series ────────────
Dimension and Style ────────
Type ────────
Action ────────
Colour ────────

Dimensions and style

22S = Ø22mm (Ø0.87") Standard style

Action

0 = Spring return

General data

Peripheral of actuator	AL
Actuator	Pa
Mechanical life	≥3 x 10^6 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

17/0.67"   54/2.13"   29/1.14"   7/0.27" max   54/2.13"
24/0.95"   16/0.63"   Ø22/Ø0.87"   29/1.14"   "S" Style

Dimensions - Holders mm/inches

30/1.18"   20/0.79"   31/1.22"   "P" Style

27/1.06"   20/0.79"   43/1.69"   "M" Style

29/1.14"   23/0.91"   42/1.65"   "N" Style
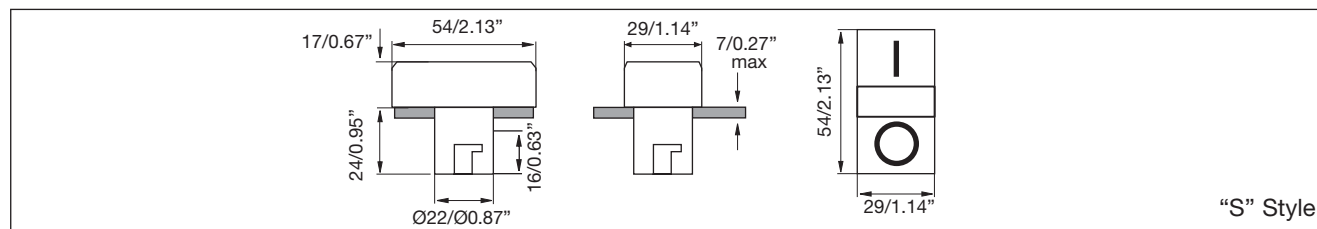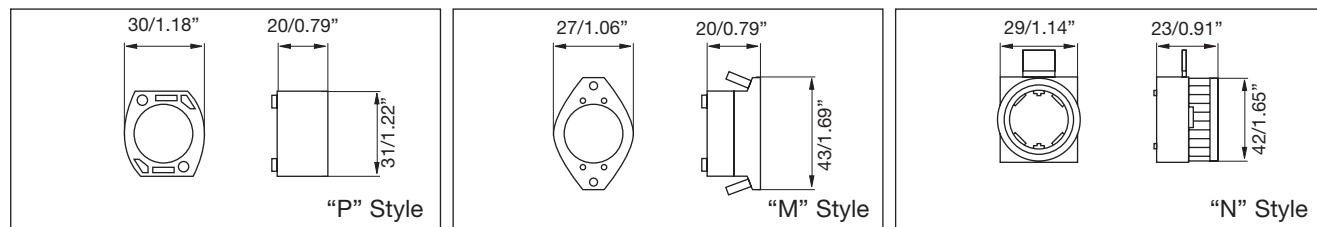
Panel Actuators and Indicators
Type PA2
Contact Block

- 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.

Approvals

c UL us LISTED 3MHG   CE   RoHS COMPLIANT

Terminals

Screw terminals

Max. section sigle-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
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 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)

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	-

Thermal Contact Rating (acc. to UL 508)	10A (A600) 5A (B600) 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

Wiring diagram

2NO	2NC	1NC
13 23 / 14 24	13 11 / 14 12	11 / 12

1NO	1NO+1NC	
13 / 14	13 11 / 14 12	
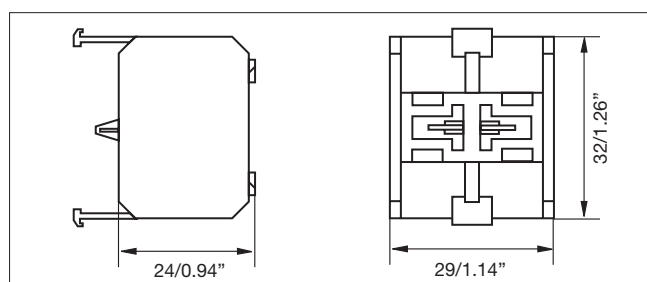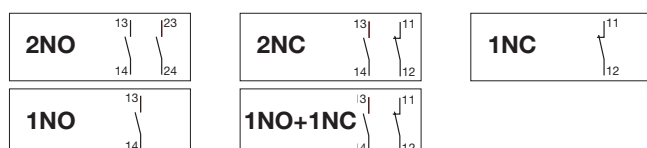
Panel Actuators and Indicators
Type PALAMP
Lamp Element

CARLO GAVAZZI

PALAMP-R220A

- Different colours choise
- High brightness pure colour LED
- High reliability and durability
- AC and DC voltage
- cULus and CE
- IEC/EN 60947-5-1, UL 508

Product description

The illuminated function in a push button is obtained using the lamp element. To choose it just to choose two different characteristics : the colour and the supply voltage.
It is made by high-brightness pure colour LED. It is a guarantee of more efficiency and reliability. Infact, the LED technology reach over than 100.000 hours of service life and the power consumption is lower than filament bulb type.

Ordering key

PALAMP R 220A

Type
Colour
Voltage

Approvals

cULus LISTED 3MHG   CE   RoHS COMPLIANT

Colours

R = Red
W = Clear/White
B = Blue

Y = Yellow
G = Green

Voltage

06 = 6VAC/DC	110 = 110VAC/DC
12 = 12VAC/DC	220D = 220VDC
24 = 24VAC/DC	220A = 220VAC
48 = 48VAC/DC	380A = 380VAC

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)

Dimensions mm/inches
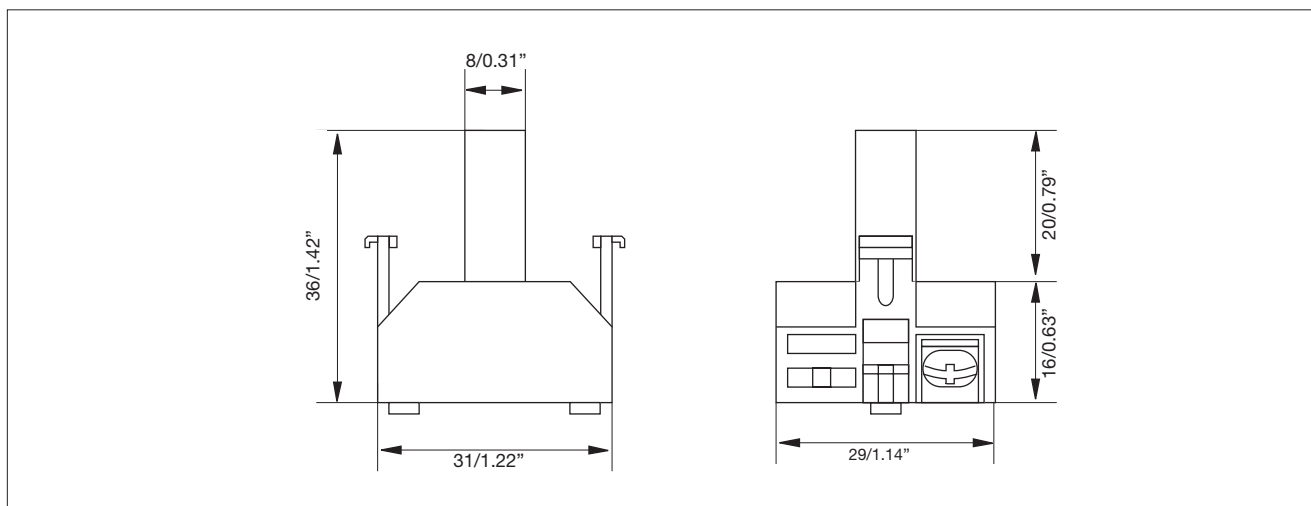
Panel Actuators and Indicators
Type PL 22
Pilot Lights

CARLO GAVAZZI

PL 22C HL

PL 22C RL

PL 22C LL

PL 22C TL

PL 22S FL

- Ø 22mm (Ø0.87") dimension
- Compact versions
- Different colours choise
- High brightness pure colour LED
- High reliability and durability
- AC and DC voltage
- cULus and CE
- IEC/EN 60947-5-1, IEC/EN 60073, IEC/EN 60529, UL 508

Product description

Pilot lights are panel mounted lamp assemblies consisting of the indicator housing, an internal lamp, terminals, and a lens. Applications include industrial control panels of all types, equipment indicator panels, status indicators and display lighting.
The light source is high brightness pure colour LED.

Approvals

c UL us LISTED 3MHG   CE   RoHS COMPLIANT

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)
Degree of protection	IP 65

Ordering key

PL 22C HL R 24

Series
Dimension
Type
Colour
Voltage

Dimensions

22S = Ø22mm (Ø0.87") standard size
22C = Ø22mm (Ø0.87") compact size (not for FL type)

Types

HL = High Lens	**TL =** Teeth Lens
RL = Round Lens	**FL =** Flash Light
LL = Low Lens	

Colours

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

Voltages

06 = 6VAC/DC	**110 =** 110VAC/DC
12 = 12VAC/DC	**220D =** 220VDC
24 = 24VAC/DC	**220A =** 220VAC
48 = 48VAC/DC	**380A =** 380VAC

Dimensions mm/inches

"HL" Type   Ø22/0.87"   Ø29/1.14"   7/0.28"max   13/0.51"   50/1.97"   39/1.54"

"RL" Type   Ø22/0.87"   Ø29/1.14"   7/0.28"max   4/0.16"   13/0.51"   50/1.97"   39/1.54"

"LL" Type   Ø22/0.87"   Ø29/1.14"   7/0.28"max   13/0.51"   50/1.97"   39/1.54"

"TL" Type   Ø22/0.87"   Ø29/1.14"   7/0.28"max   13/0.51"   50/1.97"   39/1.54"
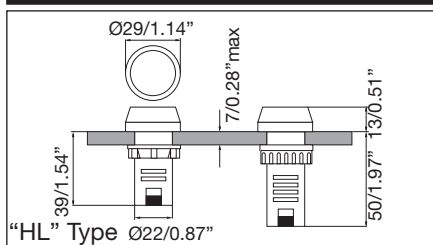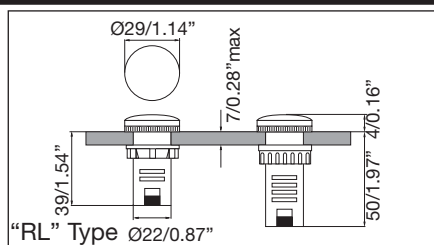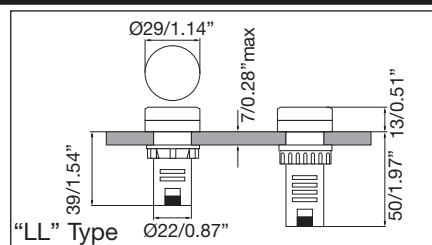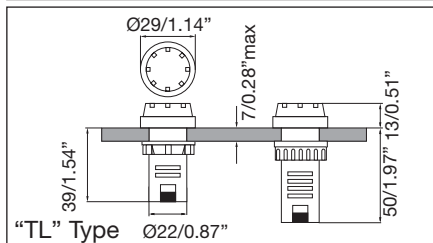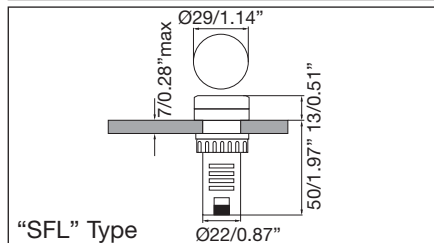
"SFL" Type   Ø22/0.87"   Ø29/1.14"   7/0.28"max   13/0.51"   50/1.97"

Panel Actuators and Indicators
Type PL 22
Two Colours Pilot Light

- **Ø 22mm (Ø0.87") dimension**
- **Two colours lamp**
- **High brightness pure colour LED**
- **High reliability and durability**
- **AC and DC voltage**
- **cULus and CE**
- **IEC/EN 60947-5-1, IEC/EN 60073, IEC/EN 60529, UL 508**

PL 22S TC

Product description

Pilot lights are panel mounted lamp assemblies consisting of the indicator housing, an internal lamp, terminals, and a lens. Applications include industrial control panels of all types, equipment indicator panels, status indicators and display lighting.

The light source is high brightness pure colour LED.

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

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/m² (≥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)
Degree of protection	IP 65

Ordering key

PL 22S TC RG 24

Series —
Dimension —
Type —
Colour —
Voltage —

Dimension and style

22S = Ø22mm (Ø0.87") standard size

Type

TC = Two colours

Colour

RG= Red and Green

Voltage

06	= 6VAC/DC	110	= 110VAC/DC
12	= 12VAC/DC	220D	= 220VDC
24	= 24VAC/DC	220A	= 220VAC
48	= 48VAC/DC	380A	= 380VAC

Dimensions mm/inches

Ø29/1.14"
7/0.28"max
13/0.51"
50/1.97"
Ø22/0.87"

"STC" Type
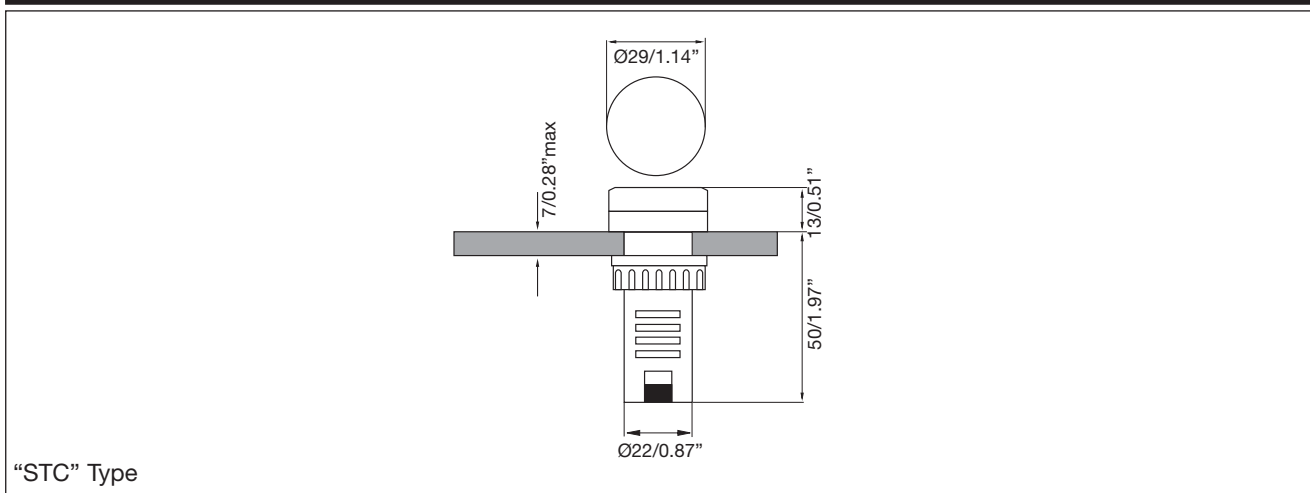
Panel Actuators and Indicators
Type PL 22
Buzzer and Flashing Buzzer

CARLO GAVAZZI

PL 22S BZK

PL 22S FBZR

- 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.

Ordering key

PL 22S BZ R 24

Series
Dimension
Type
Colour
Voltage

Approvals

c(UL)us LISTED 3MHG   CE   RoHS COMPLIANT

Dimension and style

22S = Ø22mm (Ø0.87") standard size

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 temperature	-30 to +80°C (-22 to +176°F)
Degree of protection	IP 40

Types

BZ = Buzzer   **FBZ=** Flashing buzzer

Colours

R = Red only for FBZ type
K = Black only for BZ type

Voltages

06	= 6VAC/DC	110	= 110VAC/DC
12	= 12VAC/DC	220D	= 220VDC
24	= 24VAC/DC	220A	= 220VAC
48	= 48VAC/DC	380A	= 380VAC

Dimensions mm/inches

"BZ" Type

"FBZ" Type

Specifications are subject to change without notice. Pictures are just an example. For special features and/or custumization, please ask to our sales network. 310708
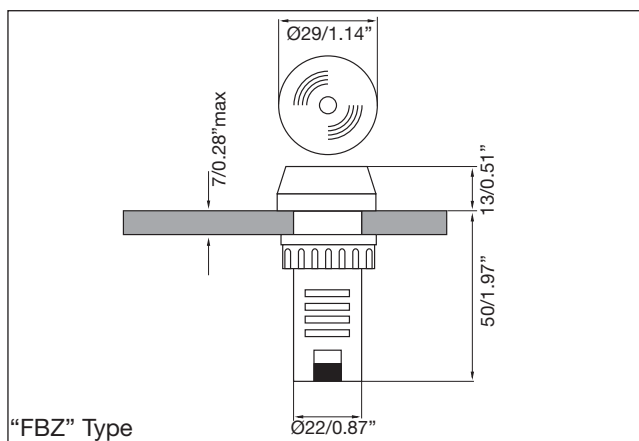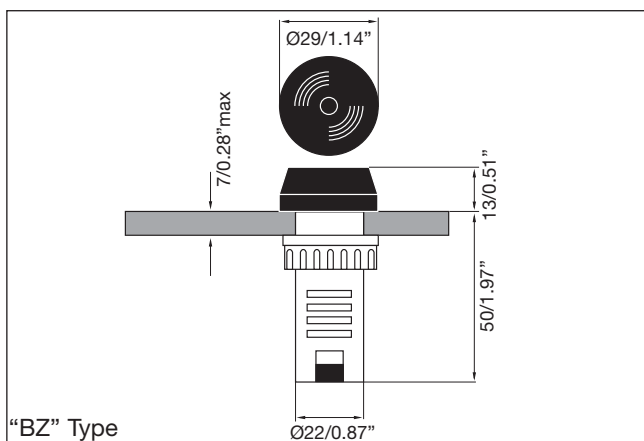
Accessories for Push Buttons, Selector Switches and Pilot Lights

CARLO GAVAZZI

		Material	Note	Code
Holder type "M"	To install push button	Zn + PBT		**PB MB M**
Holder type "P"	To install push button	PBT		**PB MB P**
Holder type "N"	To install push button	PC		**PB MB N**
Sealing cover IP67	Always on the head of operators, waterproof and dust, IP67.	Silicon rubber		**PA SEAL COV**
Shield	Always on the head of button, prevent strike and mistaking operation.	Stainless steel		**PA PB SHIELD**
Protection cover	Always on the head of button, prevent strike and mistaking operation. Lockable.	PC		**PA PB COV**
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**
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**
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**
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**
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	Ø25mm/Ø0.98" Ø30mm/Ø1.18"	**PA RR 2** **PA RR 3**
Fastering connector for Pilot Light Ø22mm (0.87")	Improve the quality of installation and reduce the time of installations.	PC		**PA PL CONN**
Panel hole cap Ø22mm (0.87")	For blocking up prepared or useless holes on the panels.	ABS		**PA PHC 22**

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