

Panel Actuators and Indicators

Type PL 22

Buzzer and Flashing Buzzer



- 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 | $\pm 20\%$ |
| Continuous operating life | ≥ 100.000 h |
| Ultra-high brightness | $\geq 100cd/m^2 (\geq 9.29ftc)$ |
| 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

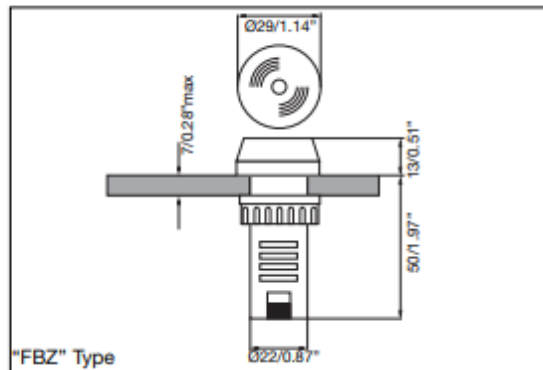
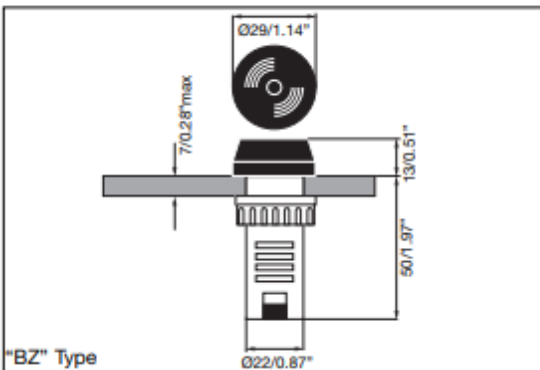
12 = 12VAC/DC

110 = 110VAC/DC

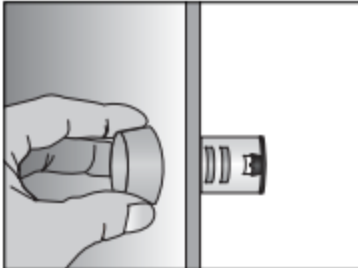
24 = 24VAC/DC

220A = 220VAC

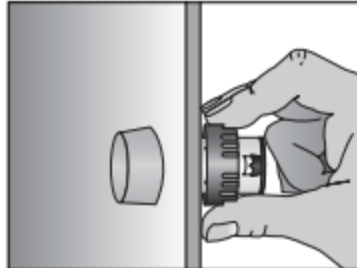
Dimensions mm/inches



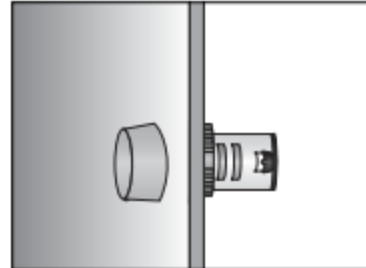
Mounting



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

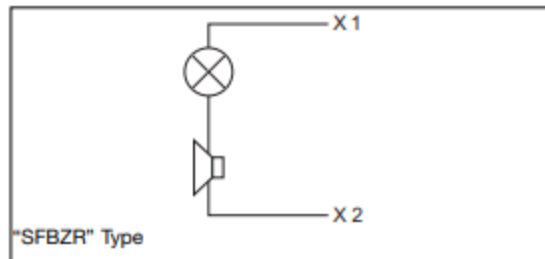
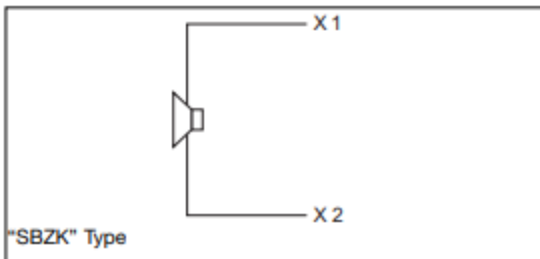


The pilot light will be secured at the back by the plastic nut



The pilot light has been installed.

Wiring Diagram

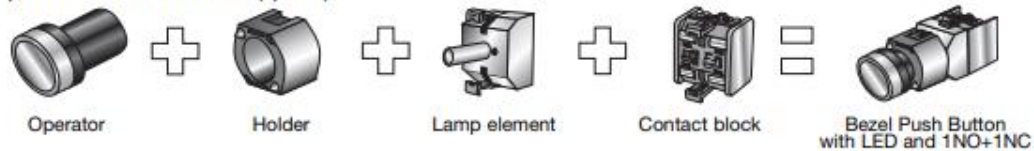


Wiring Notes

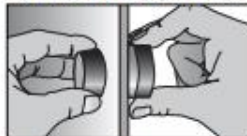
- 1) Use 60°C or 75°C copper (CU) conductor and wire size range 18AWG, stranded or solid.
- 2) Terminal tightening torque 0.6Nm (5.3in.lb)
- 3) Recommended external fuse - listed or R/C fuses, Supplemental (JDYX, JDYX2) rated 3A mmaximum.

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).



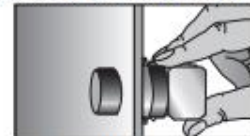
To install it, the only tool needed is a screwdriver. The same used to wiring the contact block can be used to fix the push-button.



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 Actuators



Sealing cover IP67

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

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




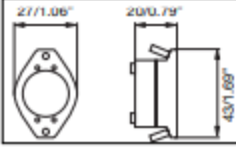

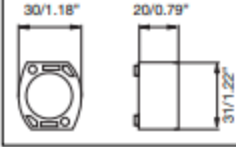

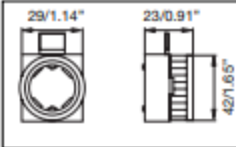
Panel hole cap Ø22mm (0.87")

For blocking up prepared or useless holes on the panels.

ABS

PA PHC 22

Holders

| | | | | |
|---|------------------------|------------------|-----------------------------------|---|
|  | Holder type "M" | Code Material | PB MB M Zn + PBT |  |
|  | Holder type "P" | Code Material | PB MB P PBT |  |
|  | Holder type "N" | Code Material | PB MB N 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
W = Clear/White
B = Blue
Y = Yellow
G = Green

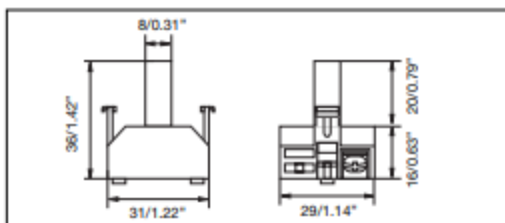
Voltage

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

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



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



- 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



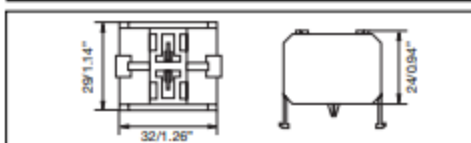
Technical data

| | |
|---|--|
| 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 |
| Terminal tightening torque | 1.2Nm (10.6in.lb.) |

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 |

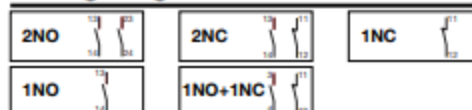
Contact characteristics

| Contact Rating AC1 | 10A @ 250VAC | | |
|---|--------------|-------------|--|
| Contact Rating | 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 | - | |

| Contact rating code designation | Terminal pitch (mm) | Maximum current, amperes (acc. to UL508) | | | | | | | | Maximum volt-amperes | |
|---------------------------------|---------------------|--|------|------|------|------|------|------|-----|----------------------|-------|
| | | 120V | | 240V | | 480V | | 600V | | 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 pitch (mm) | Maximum current, amperes (acc. to UL508) | | | Maximum make or break volt-amperes @ 300V or less |
|---------------------------------|---------------------|--|------|-------------|---|
| | | 125V | 250V | 301 to 600V | |
| Q600 | 2.5 | 0.55 | 0.27 | 0.10 | 69 |
| Q300 | 2.5 | 0.55 | 0.27 | - | 69 |

Wiring diagram



AVAILABLE PORTFOLIO CONFIGURATIONS

Flush Round Push Buttons

| | |
|-----------|-----------|
| PB22BF0B | PB22BIF0Y |
| PB22BF0G | PB22SF0B |
| PB22BF0K | PB22SF0G |
| PB22BF0R | PB22SF0K |
| PB22BF0W | PB22SF0R |
| PB22BF0Y | PB22SF0Y |
| PB22BIF0B | PB22SIF0G |
| PB22BIF0G | PB22SIF0R |
| PB22BIF0R | PB22SIF1G |
| PB22BIF0W | |

Extended Push Buttons

| | |
|-----------|-----------|
| PB22BE0G | PB22BIE0Y |
| PB22BE0K | PB22SIE0G |
| PB22BE0R | PB22SIE0R |
| PB22BIE0R | |

Red Emergency Stop Push Buttons

| | |
|-------------|------------|
| PB22BEM41R | PB22SEM41R |
| PB22BEM61R | PB22SEM61R |
| PB22BKEM41R | |

Mushroom Push Buttons

| | |
|------------|-------------|
| PB22BIM41R | PB22SM40K |
| PB22BM40G | PB22SM40R |
| PB22BM40R | PB22SM41G |
| PB22BM41R | PB22SM41R |
| PB22BM60R | PB22SPPM41R |
| PB22SIM40R | PB22SPPM61R |
| PB22SIM41R | |

Buzzer and Flashing Buzzer

| | |
|--------------|---------------|
| PL22SBZK110 | PL22SFBZR110 |
| PL22SBZK12 | PL22SFBZR12 |
| PL22SBZK220A | PL22SFBZR220A |
| PL22SBZK24 | PL22SFBZR24 |

Two Color Pilot Lights

| | |
|---------------|-------------|
| PL22STCRG110 | PL22STCRG24 |
| PL22STCRG220A | |

Pilot Lights

| | |
|--------------|--------------|
| PL22CHLB110 | PL22SFLG24 |
| PL22CHLB24 | PL22SFLR110 |
| PL22CHLG110 | PL22SFLR24 |
| PL22CHLG24 | PL22SFLW110 |
| PL22CHLR110 | PL22SFLW24 |
| PL22CHLR24 | PL22SFLY110 |
| PL22CHLW110 | PL22SFLY24 |
| PL22CHLW24 | PL22SHLG110 |
| PL22CHLY110 | PL22SHLG220A |
| PL22CHLY24 | PL22SHLG24 |
| PL22CLLB220A | PL22SHLR110 |
| PL22CLLB24 | PL22SHLR12 |
| PL22CLLG110 | PL22SHLR220A |
| PL22CLLG220A | PL22SHLR24 |
| PL22CLLG24 | PL22SHLW110 |
| PL22CLLR110 | PL22SHLW24 |
| PL22CLLR220A | PL22SHLY110 |
| PL22CLLR24 | PL22SHLY24 |
| PL22CLLW110 | PL22SLLG110 |
| PL22CLLW220A | PL22SLLG220A |
| PL22CLLW24 | PL22SLLG24 |
| PL22CLLY110 | PL22SLLR110 |
| PL22CLLY12 | PL22SLLR220A |
| PL22CLLY220A | PL22SLLR24 |
| PL22CLLY24 | PL22SLLW24 |
| PL22CRLB24 | PL22SLLY24 |
| PL22SFLB24 | PL22SRLR110 |
| PL22SFLG110 | |

Short-Handle Selector Switches

| | |
|--------------|--------------|
| PB22BSRS21K | PB22SISRS21W |
| PB22BSRS22K | PB22SISRS31G |
| PB22BSRS31K | PB22SSRS21K |
| PB22BSRS33K | PB22SSRS31K |
| PB22SISRS21R | PB22SSRS32K |

Long-Handle Selector Switches

| | |
|-------------|-------------|
| PB22BLRS21K | PB22SLRS31K |
| PB22BLRS31K | PB22SLRS32K |
| PB22SLRS21K | |

I/O Push Buttons

| | |
|------------|-------------|
| PB22SIO0RG | PB22SIOL0RG |
|------------|-------------|

Key Selector Switches

| | |
|--------------|--------------|
| PB22SKRS21KL | PB22SKRS21KR |
|--------------|--------------|

Push Button Boxes

| | |
|-----------|-----------|
| PBBOX1HBG | PBBOX3HBY |
| PBBOX1HBY | PBBOX4HBG |
| PBBOX2HBG | PBBOX4HBY |
| PBBOX2HBY | PBBOX5HBG |
| PBBOX3HBG | |

Lamp Element

| | |
|-------------|------------|
| PALAMPB110 | PALAMPR24 |
| PALAMPB24 | PALAMPW110 |
| PALAMPG110 | PALAMPW12 |
| PALAMPG220A | PALAMPW24 |
| PALAMPG24 | PALAMPY110 |
| PALAMPR110 | PALAMPY24 |
| PALAMPR220A | |

Contact Block

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

Accessories

| | |
|-----------|----------|
| PASEALCOV | PAWP6 |
| PAPBCOV | PAWP9 |
| PAMR22 | PAPHC22 |
| PALBF11 | PARR3 |
| PALBF18 | PAPLCONN |

Holders

| | |
|-------|-------|
| PBMBM | PBMBP |
| PBMBN | |

Mouser Electronics

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[PL22SBZK380A](#) [PL22SFBZR380A](#) [PL22SFBZR220D](#) [PL22SFBZR24](#) [PL22SFBZR48](#) [PL22SBZK220A](#)
[PL22SBZK110](#) [PL22SBZK24](#) [PL22SBZK12](#) [PL22SFBZR12](#)