

Main features

- Protection degrees IP67 and IP69K
- Stainless steel captive screws
- 4 side cable entries
- Screw caps included in the scope of supply

Quality marks:



EAC approval: RU C-IT.YT03.B.00035/19

Technical data

Housing

Material:

Self-extinguishing shock-proof polycarbonate with double insulation, UV-resistant and glass fibre reinforced, high shock resistance.

Material of the screws:

Stainless steel

Conduit entries:

4x knock-out side entries:
N°2 M20 - 1/2 NPT, N°2 M20 - 1/2NPT - M25
2x M16 knock-out base entries

Emergency stop button

Mechanical endurance:

300,000 operating cycles

Max. actuation frequency:

3600 operating cycles/hour

Actuation travel:

4 mm (NO contact),
4 mm (NC contact)

Actuating force:

25 N

Actuating force at limit of travel:

Push-pull 18.5 N (without contacts)
Rotary release, 35 N (without contacts)

Maximum travel:

9 mm

Tightening torque of the fixing ring:

2 ... 2.5 Nm

General data

Protection degree:

IP67 acc. to EN 60529 (with cable gland of equal or higher protection degree)

IP69K acc. to ISO 20653

(only for versions without luminous disc)

Ambient temperature:

-25°C ... +80°C

Tightening torque of the cover screws:

1 ... 1.4 Nm

Utilization requirements:

see page 163 of the General Catalogue HMI

In compliance with standards:

IEC 60947-1, IEC 60947-5-1, IEC 60204-1, EN 60947-1, EN 60947-5-1, EN 60204-1, EN IEC 63000, EN ISO 13850, UL 508, CSA 22-2 N°14.

Compliance with the requirements of:

Machinery Directive 2006/42/EC, EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU.

General data

Protection degrees IP67 and IP69K

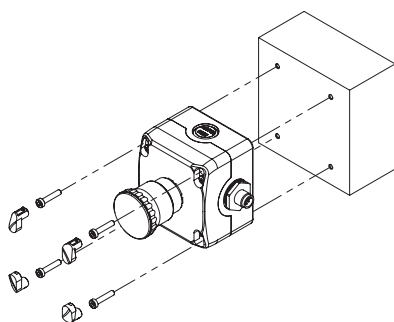
IP69K
IP67

These devices are designed to be used in the toughest environmental conditions and they pass the IP67 immersion test acc. to EN 60529. They can therefore be used in all environments where maximum protection degree of the housing is required. Due to their special design,

these devices are suitable for use in equipment subjected to cleaning with high pressure hot water jets. These devices meet the IP69K test requirements according to ISO 20653 (water jets with 100 bar and 80°C).

Fixing of EROUND housings

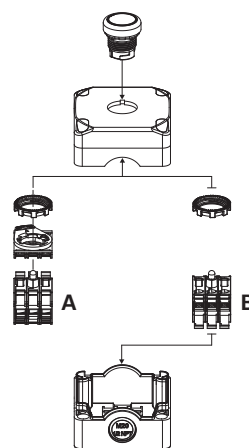
The housings of the EROUND line by Pizzato Elettrica have 4 additional holes on the cover. The holes enable wall fixing from the outside by means of insertion of the screws, without the need to open the cover to access the holes.



The wall fixing screws and the ones for closing the housing cover can be sealed with 4 caps (supplied with the housing). The caps not only give the housing a more pleasant look, but they also prevent the accumulation of dirt inside the recesses of the screws besides making tampering more difficult.

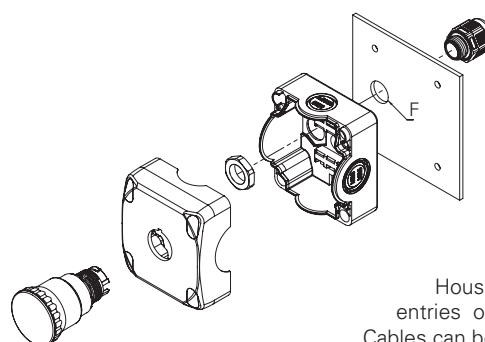
The external fixing of the housings is particularly valuable for already wired housings, since this simplifies the whole installation: you can simply fix the housing and connect the connector that, thanks to the presence of cable entries on the four sides of the housing, can be oriented in the preferred direction.

One housing, two solutions



The housing can fit up to 3 contact blocks/LED units (E2 CP, E2 LP) for panel mounting by means of a mounting adapter (A) or up to 3 contact blocks/LED units (E2 CF, E2 LF) for base mounting directly on the bottom of the housing (B).

Wiring through the lower surface



| cable gland | F |
|-------------|------|
| M16 | Ø 25 |
| M20 | Ø 28 |

Housings have 2 conduit entries on the lower surface. Cables can be connected via this surface, hiding them from view.



Complete housing units with emergency stop buttons





| Housing cover colour | Actuator design and colour | Contacts | | | Emergency stop button Push-Pull | Emergency stop button rotary release | Emergency stop button, key release |
|----------------------|----------------------------|----------|----------------------------|----------|--|--|--|
| | | pos. 2 | pos. 3 | pos. 1 | | | |
| yellow RAL 1003 | red | - | 1NC ⊕ | - | ES AC31004 ES 31001 + E2 1PEPZ4531 + E2 CF01G2V1 | ES AC31003 ES 31001 + E2 1PERZ4531 + E2 CF01G2V1 | ES AC31022 ES 31001 + E2 1PEBZ4531 + E2 CF01G2V1 |
| yellow RAL 1003 | red | - | 1NC ⊕ SELF-MONITORED | - | ES AC31081 ES 31001 + E2 1PEPZ4531 + E2 CF01S2V1 | ES AC31082 ES 31001 + E2 1PERZ4531 + E2 CF01S2V1 | ES AC31083 ES 31001 + E2 1PEBZ4531 + E2 CF01S2V1 |
| yellow RAL 1003 | red | 1NC ⊕ | - | 1NC ⊕ | ES AC31009 ES 31001 + E2 1PEPZ4531 + E2 CF01G2V1 + E2 CF01G2V1 | ES AC31005 ES 31001 + E2 1PERZ4531 + E2 CF01G2V1 + E2 CF01G2V1 | ES AC31023 ES 31001 + E2 1PEBZ4531 + E2 CF01G2V1 + E2 CF01G2V1 |
| yellow RAL 1003 | red | 1NC ⊕ | - | 1NO | ES AC31010 ES 31001 + E2 1PEPZ4531 + E2 CF01G2V1 + E2 CF10G2V1 | ES AC31006 ES 31001 + E2 1PERZ4531 + E2 CF01G2V1 + E2 CF10G2V1 | ES AC31011 ES 31001 + E2 1PEBZ4531 + E2 CF01G2V1 + E2 CF10G2V1 |
| yellow RAL 1003 | red | 1NC ⊕ | 1NC ⊕ | 1NO | ES AC31146 ES 31001 + E2 1PEPZ4531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1 | ES AC31021 ES 31001 + E2 1PERZ4531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1 | ES AC31024 ES 31001 + E2 1PEBZ4531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1 |

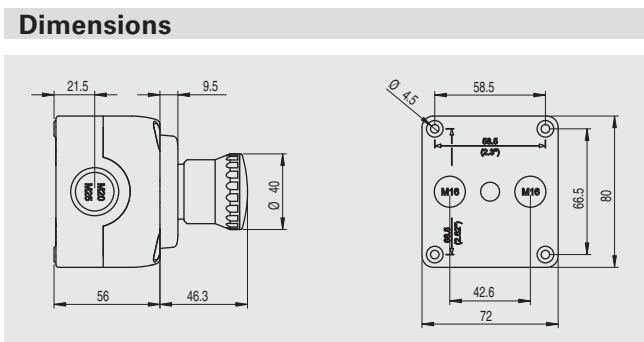
Other combinations on request.
The standard colour of the base for the codes mentioned above is RAL 9005.
For properties of contact blocks, see the General Catalogue HMI.



| Housing cover colour | Actuator design and colour | Contacts | | | Emergency stop button Push-Pull Yellow luminous disc, flashing Ø 60 mm, 24 Vac/dc | Emergency stop button rotary release Yellow luminous disc, flashing Ø 60 mm, 24 Vac/dc | Emergency stop button, key release Yellow luminous disc, flashing Ø 60 mm, 24 Vac/dc |
|----------------------|----------------------------|----------|------------------------------|--------|--|--|--|
| | | pos. 2 | pos. 3 | pos. 1 | | | |
| grey RAL 7035 | red | 1NO | 1NC ⊕ CONNECTION BLOCK | | ES AC31430 ES 31000 + E2 1PEPZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP01G2V1 + VE BC2PV1 | ES AC31433 ES 31000 + E2 1PERZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP01G2V1 + VE BC2PV1 | ES AC31436 ES 31000 + E2 1PEBZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP01G2V1 + VE BC2PV1 |
| grey RAL 7035 | red | 1NO | 1NC ⊕ SELF-MONITORED | | ES AC31431 ES 31000 + E2 1PEPZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP01S2V1 + VE BC2PV1 | ES AC31434 ES 31000 + E2 1PERZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP01S2V1 + VE BC2PV1 | ES AC31437 ES 31000 + E2 1PEBZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP01S2V1 + VE BC2PV1 |
| grey RAL 7035 | red | 1NO | 2NC ⊕ CONNECTION BLOCK | | ES AC31432 ES 31000 + E2 1PEPZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP02G2V1 + VE BC2PV1 | ES AC31435 ES 31000 + E2 1PERZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP02G2V1 + VE BC2PV1 | ES AC31438 ES 31000 + E2 1PEBZ4531 + VE DL1A5L13 + E2 CP10G2V1 + E2 CP02G2V1 + VE BC2PV1 |

Other combinations on request.
The standard colour of the base for the codes mentioned above is RAL 9005.
→ For the properties of contact blocks and luminous discs, please see the General Catalogue HMI.

| Spare caps | |
|--|--|
| Article | Description |
|  VETS35RA1 | 4 spare caps for ES series housing cover. Colour: yellow |
|  VETS39RA1 | 4 spare caps for ES series housing cover. Colour: grey |



All values in the drawings are in mm

Accessories See page 359

→ The 2D and 3D files are available at www.pizzato.com