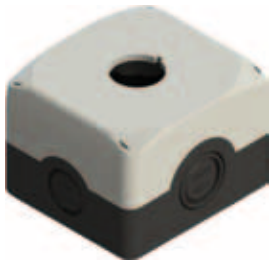
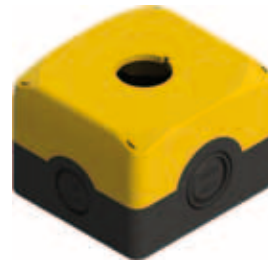


Selection diagram



ES 31000
grey cover
1 hole, Ø 22 mm



ES 31001
yellow cover
1 hole, Ø 22 mm



ES 32000
grey cover
2 holes, Ø 22 mm



ES 33000
grey cover
3 holes, Ø 22 mm



ES 34000
grey cover
4 holes, Ø 22 mm



ES 36000
grey cover
6 holes, Ø 22 mm

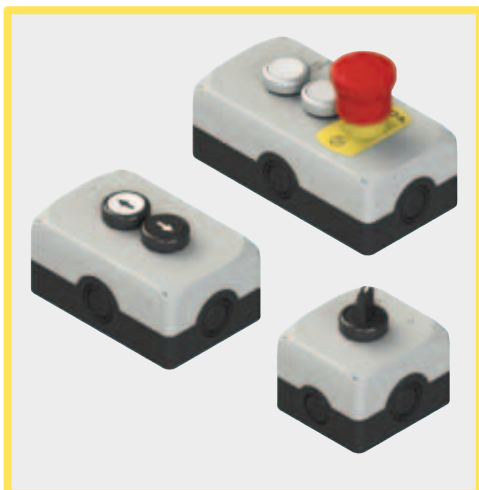
Code structure **Attention!** The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

ES 31001

Body material	
3	polycarbonate PC (standard)

Housing dimensions	
1	72x80h56 mm
2	120x80h56 mm
3	153x80h56 mm
4	186x80h56 mm
6	252x80h56 mm

Configuration	
000	black base, grey cover
001	black base, yellow cover
002	black base, grey cover without holes
...



Main features

- Protection degrees IP67 and IP69K
- Stainless steel captive screws
- 4 lateral cable inlets
- Comes with caps for screws

Markings and quality marks:



EAC approval: RU C-IT ДМ94.В.01024

Technical data

Housing

Material:

Self-extinguishing shock-proof polycarbonate with double insulation, UV resistant fibreglass reinforced, with increased shock resistance

Screw material:

stainless steel

Protection degree:

IP67 acc. to IEC 60529

Conduit entries:

IP69K acc. to ISO 20653 with cable gland having equal or higher protection degree

Housing with 1 hole:

- 2 upper and lower inputs with knock out M20 - 1/2 NPT

- 2 side inputs with knock out M20 - 1/2 NPT - M25

- 2 base inputs with knock out M16

Housings with 2-3-4-6 holes:

- 4 side inputs with knock out M20 - 1/2 NPT - M25

- 2 base inputs with knock out M20

Mounting of the devices:

Suitable for the installation of control and signalling devices Ø 22 mm

Ø 22 mm hole compliant with EN 60947-5-1 see page 124

Utilization requirements:

General data

Ambient temperature:

-40°C ... +80°C

Tightening torque of the cover screws: 1 ... 1.4 Nm

In conformity with standards:

IEC 60947-1, IEC 60947-5-1, IEC 60204-1, EN 574, EN 60947-1, EN 60947-5-1, EN 60204-1, UL 508, CSA 22-2 no.14.

In conformity with the requirements of:

Low Voltage Directive 2006/95/EC

Machinery Directive 2006/42/EC

EMC Directive 2004/108/EC.

General data

Protection degrees IP67 and IP69K

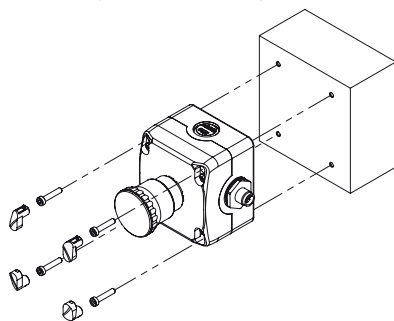
IP69K
IP67

These devices are designed to be used in the toughest environmental conditions and they pass the IP67 immersion test acc. to IEC 60529. They can therefore be used in all environments where the maximum protection

of the housing is required. Special measures also allow devices to be used even in machines which are subjected to washing with high pressure warm water jets. In fact these devices pass the IP69K test according to ISO 20653, using jets of water to 100 atmospheres at a temperature of 80°C.

Fixing of EROUND housing

The new 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 through insertion of the screws, without the need to open the cover to access the holes.

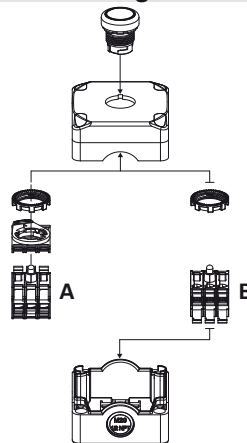


The wall fixing screws and the ones for closing the housing cover can be sealed with 4 caps (supplied with the housing). The caps not only give the housing a more pleasant look, but they also prevent the accumulation of dirt inside the recesses of the screws besides making

tampering more difficult.

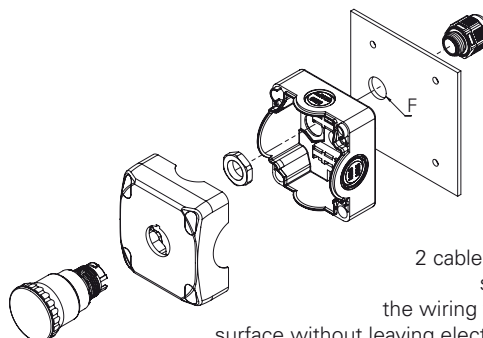
The external fixing of the housing is particularly suitable for already wired housings, because the whole installation is simplified: you can simply fix the housing and connect the connector that, thanks to the presence of cable inputs on the four sides of the housing, can be orientated in the preferred direction.

One housing, two solutions



The same 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 attachment directly on the bottom of the housing (B).

Wiring through the lower surface




cable gland	F
M16	Ø 25
M20	Ø 28

The housings have 2 cable inputs on the lower surface. These allow the wiring through the support surface without leaving electrical cables in sight.



Selection table for housings



Cover colour	Article	Hole Ø 22 mm
 yellow RAL 1003	ES 31001	1
 grey RAL 7035	ES 31000	1



The standard colour of the base in the above-mentioned codes is RAL 9005.



Cover colour	Article	Hole Ø 22 mm
 grey RAL 7035	ES 32000	2
 grey RAL 7035	ES 32002	0



The standard colour of the base in the above-mentioned codes is RAL 9005.



Cover colour	Article	Hole Ø 22 mm
 grey RAL 7035	ES 33000	3
 grey RAL 7035	ES 33002	0



The standard colour of the base in the above-mentioned codes is RAL 9005.



Cover colour	Article	Hole Ø 22 mm
 grey RAL 7035	ES 34000	4
 grey RAL 7035	ES 34002	0

The standard colour of the base in the above-mentioned codes is RAL 9005.



Cover colour	Article	Hole Ø 22 mm
 grey RAL 7035	ES 36000	6
 grey RAL 7035	ES 36002	0

The standard colour of the base in the above-mentioned codes is RAL 9005.

Items with code on **green** background are stock items

Complete units with housings



Housing cover colour	Button colour and engraving	Contacts			Flush button black bezel	Projecting button black bezel
		pos. 2	pos. 3	pos. 1		
grey RAL 7035		-	1NO	-	ES AC31001 ES 31000 + E2 1PU2R421L2 + E2 CF10G2V1	-
grey RAL 7035		-	1NC	-	ES AC31002 ES 31000 + E2 1PU2R321L1 + E2 CF01G2V1	ES AC31017 ES 31000 + E2 1PU2S321L1 + E2 CF01G2V1
grey RAL 7035		-	1NO	-	ES AC31015 ES 31000 + E2 1PU2R421GB1 + E2 CF10G2V1	-
grey RAL 7035		-	1NC	-	ES AC31016 ES 31000 + E2 1PU2R321GB0 + E2 CF01G2V1	ES AC31018 ES 31000 + E2 1PU2S321GB0 + E2 CF01G2V1

Other combinations on request.
The standard colour of the base in the above-mentioned codes is RAL 9005.
→ For the characteristics of the contact blocks and LED units, refer to the respective chapters.



Housing cover colour	Positions	Contacts			Black selector switch with 2 positions black bezel
		pos. 2	pos. 3	pos. 1	
grey RAL 7035		-	1NO	-	ES AC31019 ES 31002 + E2 1SE12AVA11AB + E2 CF10G2V1

Housing cover colour	Positions	Contacts			Black selector key switch with 2 positions black bezel
		pos. 2	pos. 3	pos. 1	
grey RAL 7035		-	1NO	-	ES AC31020 ES 31000 + E2 1SC2AVA11AE + E2 CF10G2V1

Other combinations on request.
The standard colour of the base in the above-mentioned codes is RAL 9005.
→ For the characteristics of the contact blocks and LED units, refer to the respective chapters.

Other combinations on request.
Legend Maintained Spring-return Key extraction position












Cover housing colour	Actuator design and colour	Contacts			Emergency button Push-Pull	Emergency button rotary release	Emergency button key release
		pos. 2	pos. 3	pos. 1			
yellow RAL 1023		-	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 1023		-	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 1023		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 1023		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 1023		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 in the above-mentioned codes is RAL 9005.
→ For the characteristics of the contact blocks and LED units, refer to the respective chapters.

Items with code on **green** background are stock items


















Complete units with housings





Cover housing colour	Actuator design and colour	Contacts			Emergency button Push-Pull yellow illuminated disc, blinking Ø 60 mm, 24 Vac/dc	Emergency button rotary release yellow illuminated disc, blinking Ø 60 mm, 24 Vac/dc	Emergency button key release yellow illuminated disc, blinking Ø 60 mm, 24 Vac/dc
		pos. 2	pos. 3	pos. 1			
 grey RAL 7035	 red	1NO	1NC 	BLOCK OF CONNECTION	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	BLOCK OF CONNECTION	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 	BLOCK OF CONNECTION	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 in the above-mentioned codes is RAL 9005.
→ For the characteristics of the contact blocks and LED units, refer to the respective chapters.



Cover housing colour	Actuator design and colour	Contacts			Emergency button rotary release with plastic M12 connector
		pos. 2	pos. 3	pos. 1	
 yellow RAL 1023	 red	-	1NC 	-	ES AC31025
 yellow RAL 1023	 red	-	1NC  SELF-MONITORED	-	ES AC31084
 yellow RAL 1023	 red	1NC 	-	1NC 	ES AC31026
 yellow RAL 1023	 red	1NC 	-	1NO	ES AC31027
 yellow RAL 1023	 red	1NC 	1NC 	1NO	ES AC31028

Other combinations on request.
The standard colour of the base in the above-mentioned codes is RAL 9005.
→ For the characteristics of the contact blocks and LED units, refer to the respective chapters.

Spare caps	
Article	Description
 VETS35RA1	4 spare caps for cover of ES series housings. Colour: yellow
 VETS39RA1	4 spare caps for cover of ES series housings. Colour: grey

Accessories
→ More ACCESSORIES on page 121

Items with code on **green** background are stock items

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



ES AC32012				
Description	Features			Diagram
Button - 1NO E2 1PU2R221L9 Contacts 1x E2 CF10G2V1	flush, spring-return, white			
	pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NO E2 1PU2R121L10 Contacts 1x E2 CF10G2V1	flush, spring-return, black			
	pos. 2 /	pos. 3 1NO	pos. 1 /	



ES AC32010				
Description	Features			Diagram
Button - 1NO E2 1PU2R421L35 Contacts 1x E2 CF10G2V1	flush, spring-return, green			
	pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NC E2 1PU2S321L1 Contacts 1x E2 CF10G2V1	projecting, spring-return, red			
	pos. 2 /	pos. 3 1NC ⊕	pos. 1 /	



ES AC32011				
Description	Features			Diagram
Button - 1NO E2 1PU2R421L51 Contacts 1x E2 CF10G2V1	flush, spring-return, green			
	pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NC E2 1PU2S321L48 Contacts 1x E2 CF10G2V1	projecting, spring-return, red			
	pos. 2 /	pos. 3 1NC ⊕	pos. 1 /	



ES AC33017				
Description	Features			Diagram
Button - 1NO E2 1PU2R221L9 Contacts 1x E2 CF10G2V1	flush, spring-return, white			
	pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NC E2 1PU2S321L1 Contacts 1x E2 CF10G2V1	projecting, spring-return, red			
	pos. 2 /	pos. 3 1NC ⊕	pos. 1 /	
Button - 1NO E2 1PU2R121L10 Contacts 1x E2 CF10G2V1	flush, spring-return, black			
	pos. 2 /	pos. 3 1NO	pos. 1 /	



ES AC33013				
Description	Features			Diagram
Indicator light E2 1LA310 + E2 LF1A3V1	Red indicator light 12 ... 30 Vac/dc			
Button - 1NO E2 1PU2R421L35 Contacts 1x E2 CF10G2V1	flush, spring-return, green			
	pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NC E2 1PU2S321L1 Contacts 1x E2 CF10G2V1	projecting, spring-return, red			
	pos. 2 /	pos. 3 1NC ⊕	pos. 1 /	



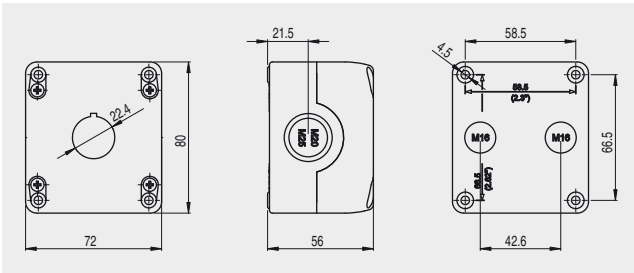
ES AC33016				
Description	Features			Diagram
Button - 1NO E2 1PU2R421L35 Contacts 1x E2 CF10G2V1	flush, spring-return, green			
	pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NC E2 1PU2S321L1 Contacts 1x E2 CF10G2V1	projecting, spring-return, red			
	pos. 2 /	pos. 3 1NC ⊕	pos. 1 /	
Button - 1NO E2 1PU2R421L36 Contacts 1x E2 CF10G2V1	flush, spring-return, green			
	pos. 2 /	pos. 3 1NO	pos. 1 /	

Other combinations on request.

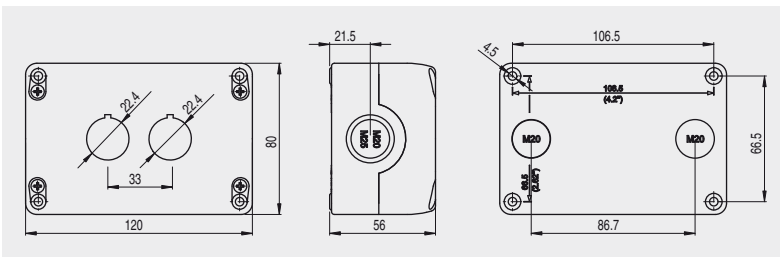
Dimensions

All measures in the drawings are in mm

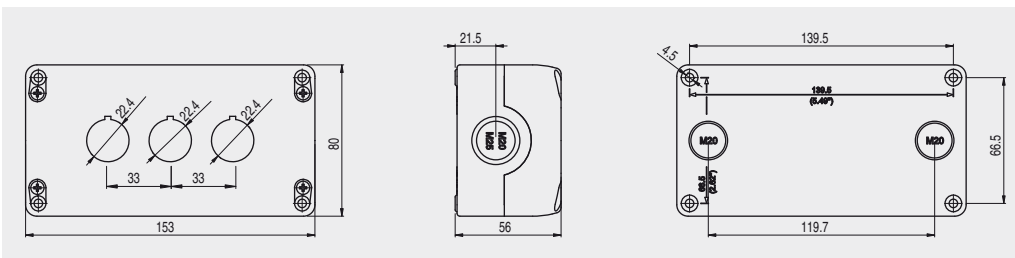
Housings (1 hole)



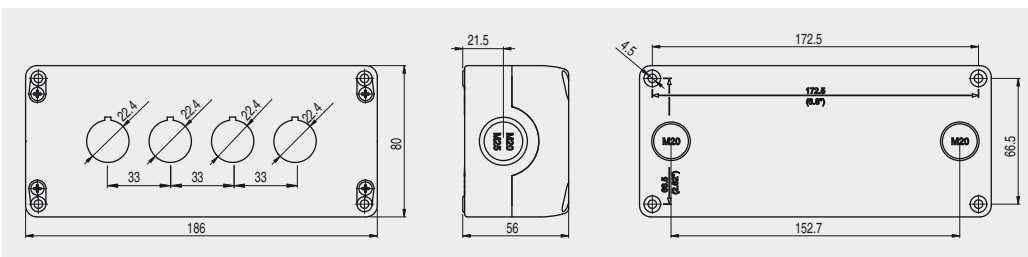
Housings (2 holes)



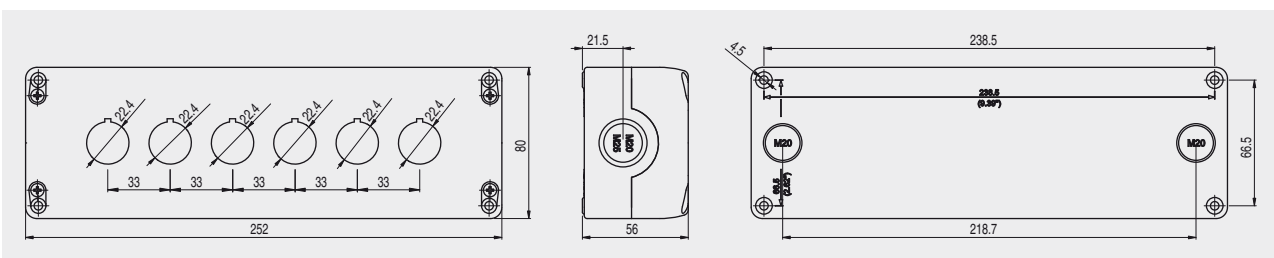
Housings (3 holes)



Housings (4 holes)



Housings (6 holes)



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