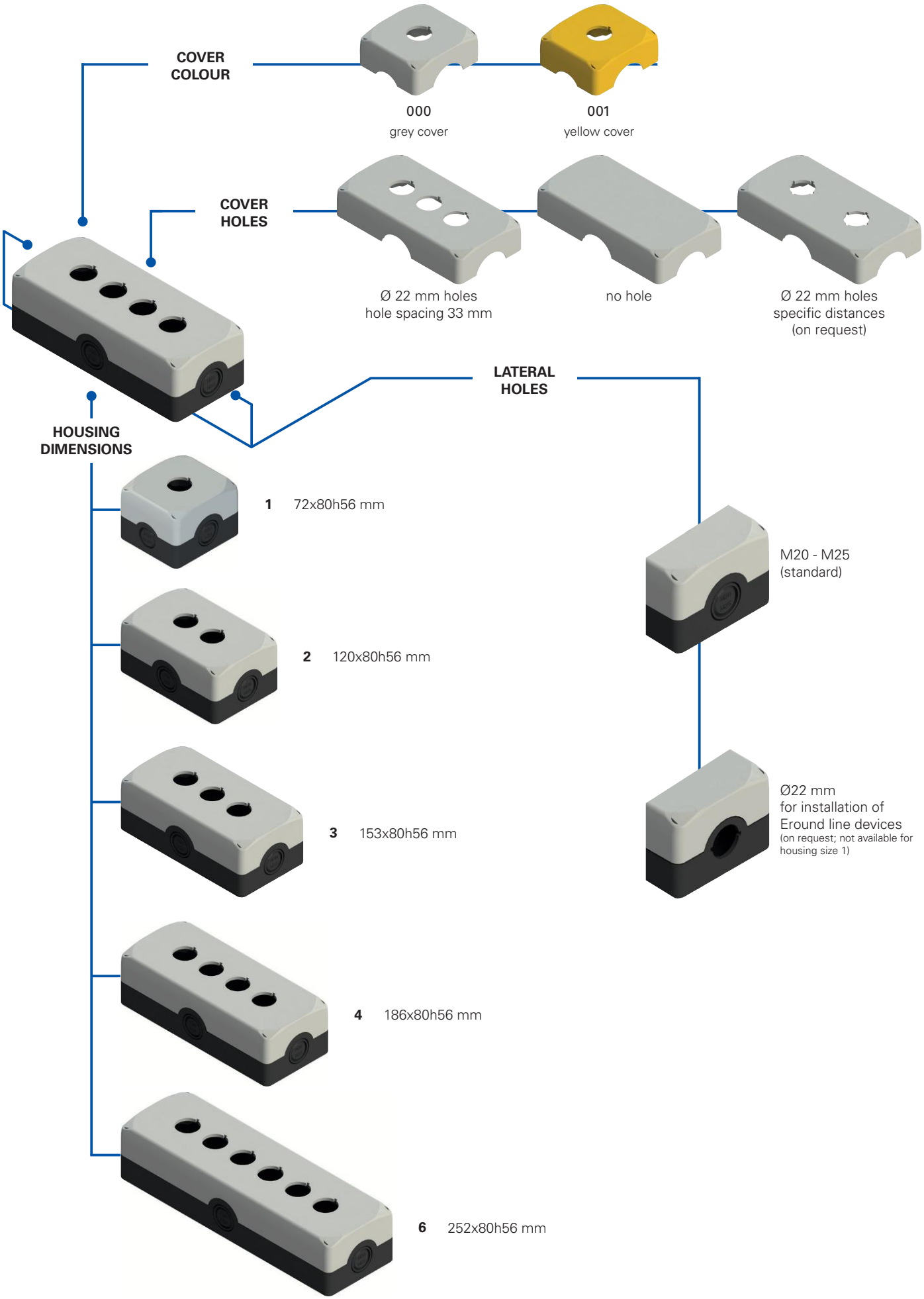
Selection diagram



Code structure

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

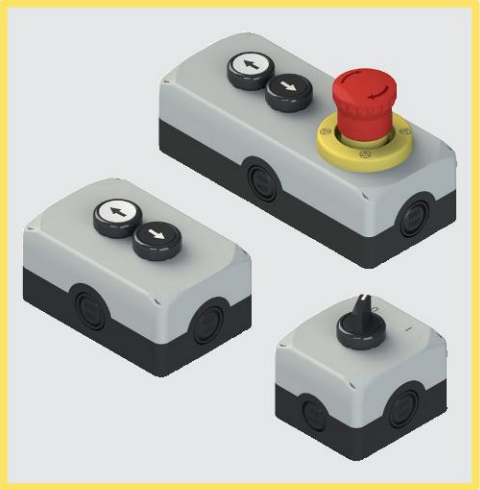
ES 3 1 000

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
...	...

Other combinations on request.



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 Д-IT.PA07.B.37848/24
UL approval: E131787

Please contact our technical department for the list of approved products.

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
Protection degree:	IP67 acc. to EN 60529 (with cable gland of equal or higher protection degree) IP69K acc. to ISO 20653 (with cable gland of equal or higher protection degree, only for versions without luminous disc)
Conduit entries:	
Housing (1 hole):	4x knock-out side entries: 2x M20 - 1/2 NPT, 2x M20 - 1/2 NPT - M25 2x M16 knock-out base entries
Housings with 2-3-4-6 holes:	4x knock-out side entries: 4x M20 - 1/2 NPT - M25 2x M20 knock-out base entries
Device installation:	Suitable for the installation of Ø 22 mm control and signalling devices. Ø 22 mm hole acc. to EN 60947-5-1
Utilization requirements:	See page 179

General data

Ambient temperature:	-40°C … +80°C
Tightening torque of the cover screws:	1 … 1.4 Nm

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, UL 508, CSA C22.2 No. 14.

Compliance with the requirements of:
Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU.

Features approved by UL

- The Tightening Torque value of cover screws: "Torque 1-1.4 Nm".
- The enclosed control box series ES and EA can be provided empty (without actuators and contact blocks) or equipped with actuators and contact blocks
- Empty version of Enclosed Control Stations ES and EA are already provided of holes for actuators
- Enclosed Control Stations ES and EA cannot be provided of mushroom actuators equipped with red head and yellow background
- Enclosed Control Stations ES and EA provided with yellow cover are not suitable for use with mushroom actuator with red head
- The Enclosed Control Stations ES and EA are suitable for conduit connection only
- For the enclosed control box series ES, the hub is to be connected to the conduit before the hub is connected to the enclosure
- For polymeric Enclosures that are intended for field assembly of the bonding means shall be located where visible during installation, such as inside the cover, and consist of the word "CAUTION " and the following or the equivalent, "Bonding between conduit connections is not automatic and must be provided as a part of the installation "; or the word "CAUTION" and the following or equivalent, "Nonmetallic enclosure does not provide grounding between conduit connection. Use grounding bushings and jumper wires".
- The maximum number of contact block for each hole of the Enclosed Control Stations ES and EA is 4
- The illuminated disk VE DL series as polymeric component assembled to Enclosed Control Stations ES and EA covers a hole of 5,5 mm diameter

General data

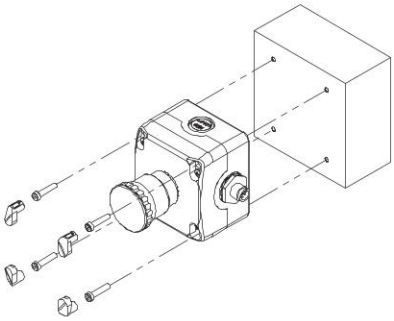
Protection degrees IP67 and IP69K

IP69K
IP67

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

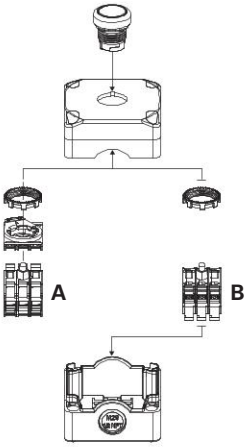
Fixing of EROUND housings

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.

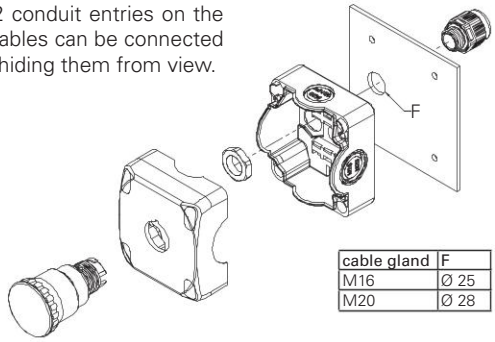
One housing, two solutions



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).

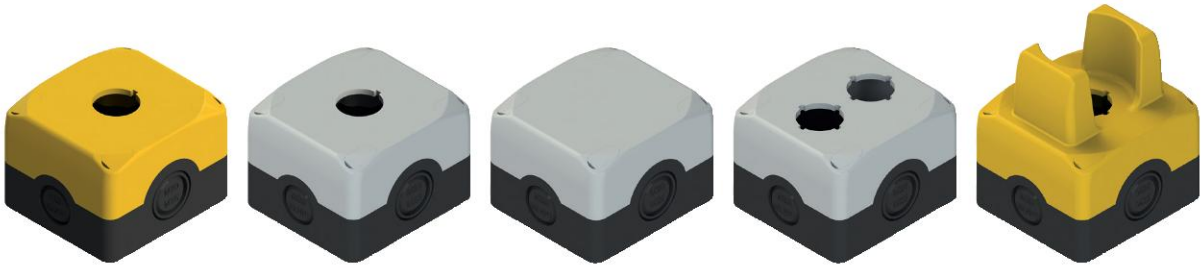
Wiring through the lower surface

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



cable gland	F
M16	Ø 25
M20	Ø 28

Selection table for housings



Cover colour	Article	Ø 22 mm hole
yellow RAL 1003	ES 31001	1
grey RAL 7035	ES 31000	1
grey RAL 7035	ES 31013	0
grey RAL 7035	ES 31014	2
yellow RAL 1003	ES 31015	1



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



Cover colour	Article	Ø 22 mm hole
grey RAL 7035	ES 33000	3
grey RAL 7035	ES 33002	0
grey RAL 7035	ES 33003	2



Cover colour	Article	Ø 22 mm hole
grey RAL 7035	ES 34000	4
grey RAL 7035	ES 34002	0
grey RAL 7035	ES 34003	3
grey RAL 7035	ES 34011	3



Cover colour	Article	Ø 22 mm hole
grey RAL 7035	ES 36000	6
grey RAL 7035	ES 36002	0
grey RAL 7035	ES 36003	5
grey RAL 7035	ES 36012	5 equidistant

Note: Item ES 36012 compatible with panel-mounted contact blocks only.

Complete control device units ES AC31•••





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

Other combinations on request.
➔ For data regarding contact blocks, please see the respective chapters.



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

Other combinations on request.
➔ For data regarding contact blocks, please see the respective chapters.



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

Other combinations on request.

Legend Maintained Spring-return Key extraction position







Housing cover colour	Actuator design and colour	Contacts pos. 2	Contacts pos. 3	Contacts pos. 1	Emergency stop button Push-Pull	Emergency stop button rotary release	Emergency stop button, key release
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.
➔ For data regarding contact blocks and luminous discs, please see the respective chapters.

Complete control device units ES AC31••• with emergency stop button Ø 60 mm





Housing cover colour	Actuator design and colour	Contacts			Emergency stop button Ø60 mm Push-Pull	Emergency stop button Ø60 mm rotary release	Emergency stop button Ø60 mm, key release
		pos. 2	pos. 3	pos. 1			
yellow RAL 1003	red	-	1NC	-	**ES AC31843** ES 31001 + E2 1PEPZ6531 + E2 CF01G2V1	**ES AC31850** ES 31001 + E2 1PERZ6531 + E2 CF01G2V1	**ES AC31847** ES 31001+ E2 1PEBZ6531 + E2 CF01G2V1
yellow RAL 1003	red	-	1NC SELF-MONITORED	-	**ES AC31844** ES 31001 + E2 1PEPZ6531 + E2 CF01S2V1	**ES AC31854** ES 31001 + E2 1PERZ6531 + E2 CF01S2V1	**ES AC31846** ES 31001+ E2 1PEBZ6531 + E2 CF01S2V1
yellow RAL 1003	red	1NC	-	1NC	**ES AC31845** ES 31001 + E2 1PEPZ6531 + E2 CF01G2V1 + E2 CF01G2V1	**ES AC31853** ES 31001 + E2 1PERZ6531 + E2 CF01G2V1 + E2 CF01G2V1	**ES AC31842** ES 31001+ E2 1PEBZ6531 + E2 CF01G2V1 + E2 CF01G2V1
yellow RAL 1003	red	1NC	-	1NO	**ES AC31848** ES 31001 + E2 1PEPZ6531 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31852** ES 31001 + E2 1PERZ6531 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31841** ES 31001+ E2 1PEBZ6531 + E2 CF01G2V1 + E2 CF10G2V1
yellow RAL 1003	red	1NC	1NC	1NO	**ES AC31849** ES 31001 + E2 1PEPZ6531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31851** ES 31001 + E2 1PERZ6531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31840** ES 31001+ E2 1PEBZ6531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1

Complete control device units ES AC31•••





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 AC31054** ES 31015 + E2 1PEPZ4531 + E2 CF01G2V1	**ES AC31238** ES 31015 + E2 1PERZ4531 + E2 CF01G2V1	**ES AC31606** ES 31015 + E2 1PEBZ4531 + E2 CF01G2V1
yellow RAL 1003	red	-	1NC SELF-MONITORED	-	**ES AC31601** ES 31015 + E2 1PEPZ4531 + E2 CF01S2V1	**ES AC31605** ES 31015 + E2 1PERZ4531 + E2 CF01S2V1	**ES AC31607** ES 31015 + E2 1PEBZ4531 + E2 CF01S2V1
yellow RAL 1003	red	1NC	-	1NC	**ES AC31602** ES 31015 + E2 1PEPZ4531 + E2 CF01G2V1 + E2 CF01G2V1	**ES AC31050** ES 31015 + E2 1PERZ4531 + E2 CF01G2V1 + E2 CF01G2V1	**ES AC31092** ES 31015 + E2 1PEBZ4531 + E2 CF01G2V1 + E2 CF01G2V1
yellow RAL 1003	red	1NC	-	1NO	**ES AC31603** ES 31015 + E2 1PEPZ4531 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31056** ES 31015 + E2 1PERZ4531 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31608** ES 31015 + E2 1PEBZ4531 + E2 CF01G2V1 + E2 CF10G2V1
yellow RAL 1003	red	1NC	1NC	1NO	**ES AC31604** ES 31015 + E2 1PEPZ4531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31332** ES 31015 + E2 1PERZ4531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1	**ES AC31609** ES 31015 + E2 1PEBZ4531 + E2 CF01G2V1 + E2 CF01G2V1 + E2 CF10G2V1

Other combinations on request.
➔ For data regarding contact blocks, please see the respective chapters.

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

Complete control device units ES AC31••• with luminous disc







Housing cover colour	Actuator design and colour	Contacts pos. 2	Contacts pos. 3	Contacts pos. 1	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
grey RAL 7035	red	1NO	1NC ⊖	CONNECTION BLOCK	**ES AC31430** ES 31000 + E2 1PEPZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + VE BC2PV1	**ES AC31433** ES 31000 + E2 1PERZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + VE BC2PV1	**ES AC31436** ES 31000 + E2 1PEBZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + VE BC2PV1
grey RAL 7035	red	1NO	1NC ⊖ SELF-MONITORED	CONNECTION BLOCK	**ES AC31431** ES 31000 + E2 1PEPZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01S2V1 + VE BC2PV1	**ES AC31434** ES 31000 + E2 1PERZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01S2V1 + VE BC2PV1	**ES AC31437** ES 31000 + E2 1PEBZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01S2V1 + VE BC2PV1
grey RAL 7035	red	1NO	2NC ⊖	CONNECTION BLOCK	**ES AC31432** ES 31000 + E2 1PEPZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP02G2V1 + VE BC2PV1	**ES AC31435** ES 31000 + E2 1PERZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP02G2V1 + VE BC2PV1	**ES AC31438** ES 31000 + E2 1PEBZ4531 + VE DL1A5L13 + E2 1BAC11 + E2 CP10G2V1 + E2 CP02G2V1 + VE BC2PV1

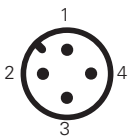
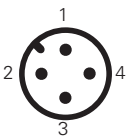
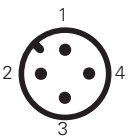
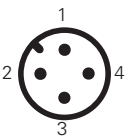
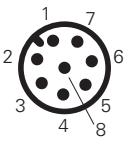
Complete control device units ES AC31••• with wired M12 connector



Housing cover colour	Actuator design and colour	Contacts pos. 2	Contacts pos. 3	Contacts pos. 1	Emergency stop button rotary release with plastic M12 connector
yellow RAL 1003	red	-	1NC ⊖	-	**ES AC31025**
yellow RAL 1003	red	-	1NC ⊖ SELF-MONITORED	-	**ES AC31084**
yellow RAL 1003	red	1NC ⊖	-	1NC ⊖	**ES AC31026**
yellow RAL 1003	red	1NC ⊖	-	1NO	**ES AC31027**
yellow RAL 1003	red	1NC ⊖	1NC ⊖	1NO	**ES AC31028**

Other combinations on request.
➔ For data regarding contact blocks, please see the respective chapters.

Wiring diagram for assembled connectors

ES AC31025 1NC	ES AC31084 1NC SELF-MONITORED	ES AC31026 2NC	ES AC31027 1NO+1NC	ES AC31028 1NO+2NC
				
M12 connector, 4-pole	M12 connector, 4-pole	M12 connector, 4-pole	M12 connector, 4-pole	M12 connector, 8-pole

Contacts	Pin no.	Contacts	Pin no.	Contacts	Pin no.	Contacts	Pin no.	Contacts	Pin no.
NC	1-2	NC	1-2	NC	1-2	NC	1-2	NC	3-4
				NC	3-4	NO	3-4	NC	5-6
								NO	7-8

Other combinations on request.
➔ For data regarding contact blocks and luminous discs, please see the respective chapters.

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

Accessories

➔ More ACCESSORIES on page 175



ES AC31600

Description	Features			Diagram
Button - 1NO E2 1PU2R221L9 Contacts 1x E2 CP10G2V1	flush, spring-return, white pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NO E2 1PU2R121L10 Contacts 1x E2 CP10G2V1	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 CF01G2V1	projecting, spring-return, red pos. 2 /	pos. 3 1NC ⊖	pos. 1 /	

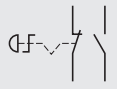


ES AC33017

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 CF01G2V1	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 /	

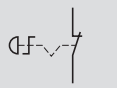


ES AC34035

Description	Features			Diagram
Button - 1NO E2 1PU2R221L9 Contacts 1x E2 CP10G2V1	flush, spring-return, white pos. 2 /	pos. 3 1NO	pos. 1 /	
Button - 1NO E2 1PU2R121L10 Contacts 1x E2 CP10G2V1	flush, spring-return, black pos. 2 /	pos. 3 1NO	pos. 1 /	
Emergency stop button E2 1PERZ4531 Contacts 1x E2 CP01G2V1+1x E2 CP10G2V1	rotary release, red pos. 2 1 NO	pos. 3 /	pos. 1 1NC ⊖	
Luminous disc VE DL1A5L13	Yellow, continuous light 24 Vac/dc			



ES AC36041

Description	Features			Diagram
Button - 1NO E2 1PU2F4410 Protection guard 1x VE GP32B1A Contacts 1x E2 CP10G2V1	mushroom, spring-return, green cylindrical, black pos. 2 /	pos. 3 1NO	pos. 1 /	
Emergency stop button - 1NC E2 1PERZ4531 Contacts 1x E2 CP01G2V1	rotary release, red pos. 2 /	pos. 3 1NC ⊖	pos. 1 /	
Button - 1NO E2 1PU2F4410 Protection guard 1x VE GP32B1A Contacts 1x E2 CP10G2V1	mushroom, spring-return, green cylindrical, black pos. 2 /	pos. 3 1NO	pos. 1 /	

Other combinations on request.

Housings with **illuminated guard and buzzer**



Main features
- Protection degrees IP67 and IP69K
- Stainless steel captive screws
- 4 side cable entries
- Screw caps included in the scope of supply
- Cover with illuminated upper guard
- Version with white cover and RGB LED
- Version with yellow cover also suitable for use in lift sector
- Integrated buzzer

Quality marks:

EAC approval: RU Д-IT.PA07.B.37848/24

Technical data

Housing

Material:	Self-extinguishing shock-proof polycarbonate with double insulation, high shock resistance.
Material of the screws:	Stainless steel
Conduit entries:	4x knock-out side entries: 2x M20 - 1/2 NPT, 2x M20 - 1/2NPT - M25 2x M16 knock-out base entries

General data

Protection degree:	IP67 acc. to EN 60529 (with cable gland of equal or higher protection degree) IP69K acc. to ISO 20653 (with cable gland of equal or higher protection degree)
Tightening torque of the cover screws:	1 … 1.4 Nm
Rated operating voltage U_e:	24 Vdc ±10% SELV/PELV
Operating current at U_e voltage:	50 mA (white LEDs) 120 mA (RGB LEDs)
Sound intensity:	80 dB at 10cm
Blinking frequency:	1Hz (0.5 s ON and 0.5 s OFF)
Ambient temperature:	-25 °C … + 80 °C
Connection type:	PUSH-IN spring-operated connection
Cable cross section:	min. 1 x 0.34 mm² (1 x AWG 24) max. 1 x 1.5 mm² (1 x AWG 16)
Cable stripping length:	min. 8 mm max. 12 mm
Utilization requirements:	see page 179

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 C22.2 No. 14.

Compliance with the requirements of:
Machinery Directive 2006/42/EC, EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU.

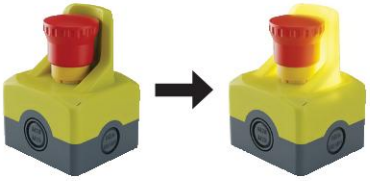
General data

Introduction



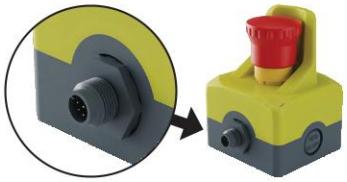
The new housing with illuminated guard and buzzer features a cover with illuminated device protection guard and buzzer for acoustic signals. These features make it easy to identify. The natural use for this housing is with an emergency stop button. However, the housing can also be used with other devices, such as selector switches. The integrated guard protects the button from dust and avoids accidental activation, whilst enabling the emergency stop button to be easily reset. The illuminated cover makes the housing easy to identify on the machine, while the integrated buzzer can be configured to warn the operator when the emergency stop button has been pressed. The cover is available in two colour variants: yellow or white.

Version with yellow illuminated cover



The housing with yellow cover lights up yellow when illuminated and can also be used for applications in the lift sector.

Wiring of the housing



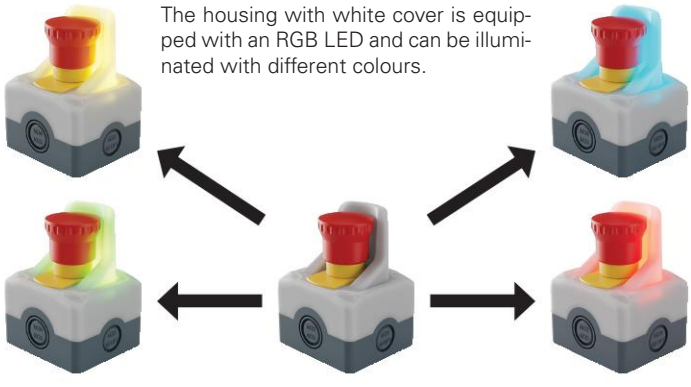
The box can be wired using the internal terminal strip, enabling selection of continuous or intermittent modes for the light and acoustic signals. Alternatively it can be ordered pre-wired with an M12 connector.

Buzzer



All housings can be equipped with a buzzer featuring selectable continuous or intermittent operation.

Version with white RGB illuminated cover



The housing with white cover is equipped with an RGB LED and can be illuminated with different colours.

White housing with selector



The housing can also be paired with other devices, such as multiple-position selectors.

Complete control device units with illuminated guard and buzzer ES AC31•••



Housing cover colour	Actuator design and colour	Contacts pos. 2	Contacts pos. 3	Contacts pos. 1	Buzzer	Push-pull emergency-stop button 24 Vdc yellow illuminated guard	Emergency stop button rotary release 24 Vdc yellow illuminated guard
yellow transparent	red	1NC ⊖	1NC ⊖	1NO	Yes	**ES AC31683** E2 1PEPZ4531 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + E2 CP01G2V1	**ES AC31763** E2 1PERZ4531 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + E2 CP01G2V1
yellow transparent	red	1NC ⊖	-	1NC ⊖	No	**ES AC31701** E2 1PEPZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1	**ES AC31764** E2 1PERZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1
yellow transparent	red	1NC ⊖	-	1NC ⊖	Yes	**ES AC31702** E2 1PEPZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1	**ES AC31765** E2 1PERZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1

Spare caps

Article		Description
	VETS45RA1	4 spare caps for ES series housing cover. Colour: yellow

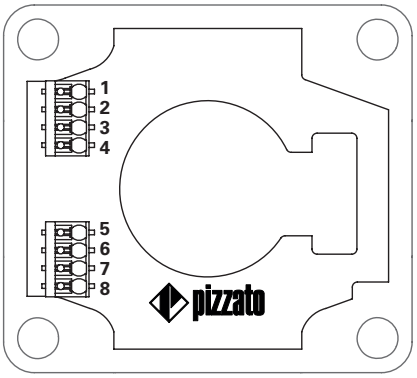
Internal connections (versions with yellow cover)

Terminal no.	Connections
1	Supply input +24 Vdc for buzzer (if available) with pulsed tone
2	Supply input +24 Vdc for buzzer (if available) with continuous tone
3	Supply input +24 Vdc for blinking light
4	Supply input +24 Vdc for continuous light
5	Not connected
6	Not connected
7	Not connected
8	Supply input 0 Vdc



Connection diagram for lights and buzzers

Terminal no.	Buzzer with pulsed tone	Buzzer with continuous tone	Blinking light	Continu-ous light	Buzzer with pulsed tone and blinking light	Buzzer continuous tone and blinking light	Buzzer with pulsed tone and continuous light	Buzzer with continuous tone and continuous light
1	+24 Vdc	-	-	-	+24 Vdc	-	+24 Vdc	-
2	-	+24 Vdc	-	-	-	+24 Vdc	-	+24 Vdc
3	-	-	+24 Vdc	-	+24 Vdc	+24 Vdc	-	-
4	-	-	-	+24 Vdc	-	-	+24 Vdc	+24 Vdc
5	Terminals not connected							
6								
7								
8	0 Vdc							



Other combinations on request.
➔ For data regarding contact blocks, please see the respective chapters.

Accessories See page 183

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

Housings with **illuminated guard and buzzer**

Complete control device units with RGB illuminated guard and buzzer ES AC31•••



Housing cover colour	Actuator design and colour	Contacts			Buzzer	Push-pull emergency-stop button 24 Vdc RGB illuminated guard	Emergency stop button rotary release 24 Vdc RGB illuminated guard
		pos. 2	pos. 3	pos. 1			
white transparent	red	1NC	1NC	1NO	Yes	**ES AC31684** E2 1PEPZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + E2 CP01G2V1	**ES AC31762** E2 1PERZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + E2 CP01G2V1
white transparent	red	1NC	-	1NC	No	**ES AC31703** E2 1PEPZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1	**ES AC31759** E2 1PERZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1
white transparent	red	1NC	-	1NC	Yes	**ES AC31704** E2 1PEPZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1	**ES AC31766** E2 1PERZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1

Spare caps

Article		Description
	VETS42RA1	4 spare caps for ES series housing cover. Colour: white





Housing cover colour	Positions	Contacts			Buzzer	3-position key selector switch, satin chrome bezel 24 Vdc RGB illuminated guard
		pos. 2	pos. 3	pos. 1		
white transparent		1NO	-	1NO	Yes	**ES AC31732** E2 2SC3ACE19AA + E2 1BAC11 + E2 CP10G2V1 + VE BC2PV1 + E2 CP10G2V1
white transparent		1NO	-	1NO	No	**ES AC31733** E2 2SC3ACE19AA + E2 1BAC11 + E2 CP10G2V1 + VE BC2PV1 + E2 CP10G2V1

Housing cover colour	Positions	Contacts			Buzzer	3-position black selector switch with long handle, satin chrome bezel 24 Vdc RGB illuminated guard
		pos. 2	pos. 3	pos. 1		
white transparent		1NO	-	1NO	Yes	**ES AC31730** E2 2SE23ACE19AB + E2 1BAC11 + E2 CP10G2V1 + VE BC2PV1 + E2 CP10G2V1
white transparent		1NO	-	1NO	No	**ES AC31731** E2 2SE23ACE19AB + E2 1BAC11+ E2 CP10G2V1 + VE BC2PV1 + E2 CP10G2V1

Other combinations on request.
➔ For data regarding contact blocks, please see the respective chapters.

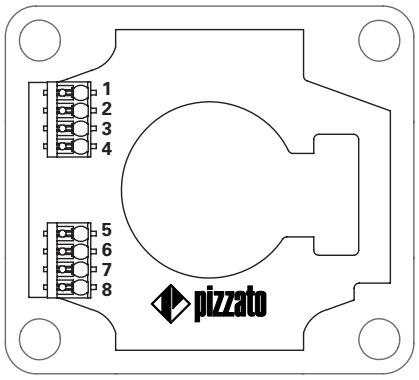
Accessories See page 183

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

Internal connections (versions with white cover)

Terminal no.	Connections
1	Supply input +24 Vdc for buzzer (if available) with pulsed tone
2	Supply input +24 Vdc for buzzer (if available) with continuous tone
3	Supply input +24 Vdc for blinking light
4	Supply input +24 Vdc for continuous light
5	Supply input +24 Vdc, blue LED
6	Supply input +24 Vdc, green LED
7	Supply input +24 Vdc, red LED
8	Supply input 0 Vdc





Connection diagram for lights and buzzers								
Terminal no.	Buzzer with pulsed tone	Buzzer with continuous tone	Blinking light	Continu-ous light	Buzzer with pulsed tone and blinking light	Buzzer continuous tone and blinking light	Buzzer with pulsed tone and continuous light	Buzzer with continuous tone and continuous light
1	+24 Vdc	-	-	-	+24 Vdc	-	+24 Vdc	-
2	-	+24 Vdc	-	-	-	+24 Vdc	-	+24 Vdc
3	-	-	+24 Vdc	-	+24 Vdc	+24 Vdc	-	-
4	-	-	-	+24 Vdc	-	-	+24 Vdc	+24 Vdc
5	See RGB LED connection-diagram table							
6								
7								
8	0 Vdc							

RGB LED connection diagram							
Terminal no.	Colour						
							
5	+24 Vdc	-	-	-	+24 Vdc	+24 Vdc	+24 Vdc
6	-	+24 Vdc	-	+24 Vdc	-	+24 Vdc	+24 Vdc
7	-	-	+24 Vdc	+24 Vdc	+24 Vdc	-	+24 Vdc

Accessories See page 183

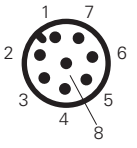
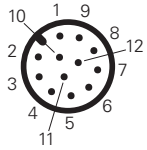
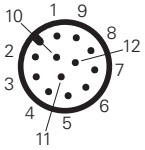
➔ The 2D and 3D files are available at **www.pizzato.com**

Complete control device units with illuminated guard and buzzer ES AC31••• with wired M12 connector



Housing cover colour	Actuator design and colour	Contacts pos. 2	Contacts pos. 3	Contacts pos. 1	Buzzer	Push-pull emergency-stop button 24 Vdc yellow illuminated guard	Emergency stop button rotary release 24 Vdc yellow illuminated guard
yellow transparent	red	1NC	1NC	1NO	Yes	**ES AC31709** E2 1PEPZ4531 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20	**ES AC31767** E2 1PERZ4531 + E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20
yellow transparent	red	1NC	-	1NC	No	**ES AC31705** E2 1PEPZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM8MM + VF DFPM20	**ES AC31768** E2 1PERZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM8MM + VF DFPM20
yellow transparent	red	1NC	-	1NC	Yes	**ES AC31706** E2 1PEPZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20	**ES AC31769** E2 1PERZ4531 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20

Wiring diagram for assembled connectors

ES AC31705 - ES AC31768		ES AC31706 - ES AC31769		ES AC31709 - ES AC31767	
 M12 connector, 8-pole		 M12 connector, 12-pole		 M12 connector, 12-pole	
Contacts	**Pin no.**	**Contacts**	**Pin no.**	**Contacts**	**Pin no.**
1NC	1-2	1NC	1-2	1NC	1-2
1NC	3-4	1NC	3-4	1NC	3-4
Power supply, continuous light	5	Power supply, buzzer with continuous tone	5	1NO	5-6
Power supply, blinking light	6	Power supply, buzzer with pulsed tone	6	Power supply, buzzer with continuous tone	7
Power supply 0 V	7	Power supply, continuous light	7	Power supply, buzzer with pulsed tone	8
/	8	Power supply, blinking light	8	Power supply, continuous light	9
		Power supply 0 V	9	Power supply, blinking light	10
		/	10	Power supply 0 V	11
		/	11	/	12
		/	12		

Spare caps

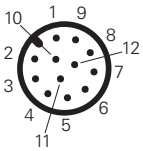
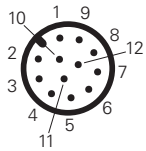
Article	Description
 VETS45RA1	4 spare caps for ES series housing cover. Colour: yellow

Complete control device units with RGB illuminated guard and buzzer ES AC31••• with wired M12 connector



Housing cover colour	Actuator design and colour	Contacts pos. 2	Contacts pos. 3	Contacts pos. 1	Buzzer	Push-pull emergency-stop button 24 Vdc RGB illuminated guard	Emergency stop button rotary release 24 Vdc RGB illuminated guard
white transparent	red	1NC	-	1NC	No	**ES AC31707** E2 1PEPZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20	**ES AC31770** E2 1PERZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20
white transparent	red	1NC	-	1NC	Yes	**ES AC31708** E2 1PEPZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20	**ES AC31771** E2 1PERZ4531 + VE TF32H5700 + E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1 + VF CNM12MM-L16 + VF DFPM20

Wiring diagram for assembled connectors

ES AC31707 - ES AC31770		ES AC31708 - ES AC31771	
 M12 connector, 12-pole		 M12 connector, 12-pole	
Contacts	**Pin no.**	**Contacts**	**Pin no.**
1NC	1-2	1NC	1-2
1NC	3-4	1NC	3-4
Power supply, continuous light	5	Power supply, buzzer with continuous tone	5
Power supply, blinking light	6	Power supply, buzzer with pulsed tone	6
Power supply, red LED	7	Power supply, continuous light	7
Power supply, green LED	8	Power supply, blinking light	8
Power supply, blue LED	9	Power supply, red LED	9
Power supply 0 V	10	Power supply, green LED	10
/	11	Power supply, blue LED	11
/	12	Power supply 0 V	12

Spare caps

Article	Description
 VETS42RA1	4 spare caps for ES series housing cover. Colour: white

Other combinations on request.

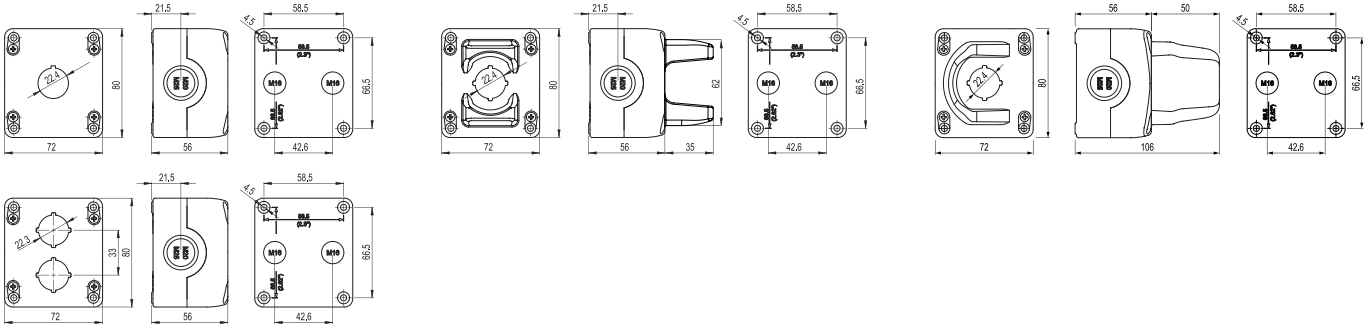
➔ For data regarding contact blocks, please see the respective chapters.

Accessories See page 183

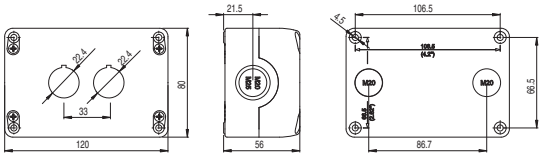
➔ The 2D and 3D files are available at **www.pizzato.com**

Dimensional drawings

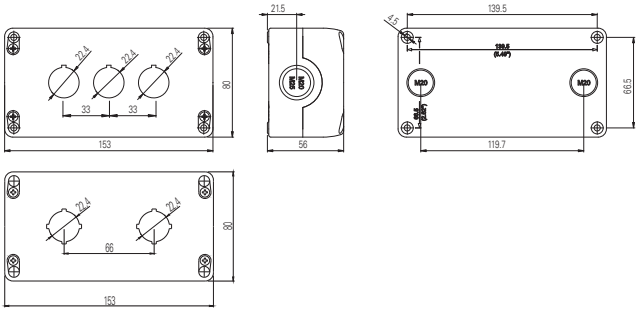
Housings (72 x 80 h 56)



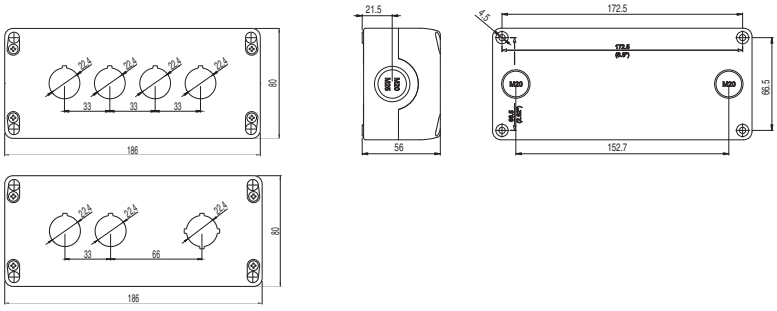
Housings (120 x 80 h 56)



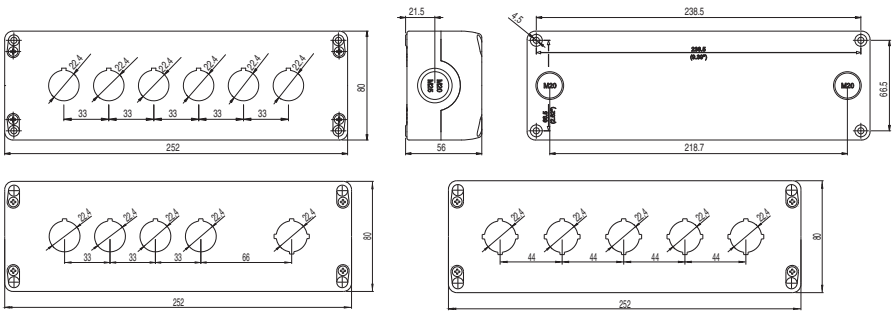
Housings (153 x 80 h 56)



Housings (186 x 80 h 56)



Housings (252 x 80 h 56)



All values in the drawings are in mm

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