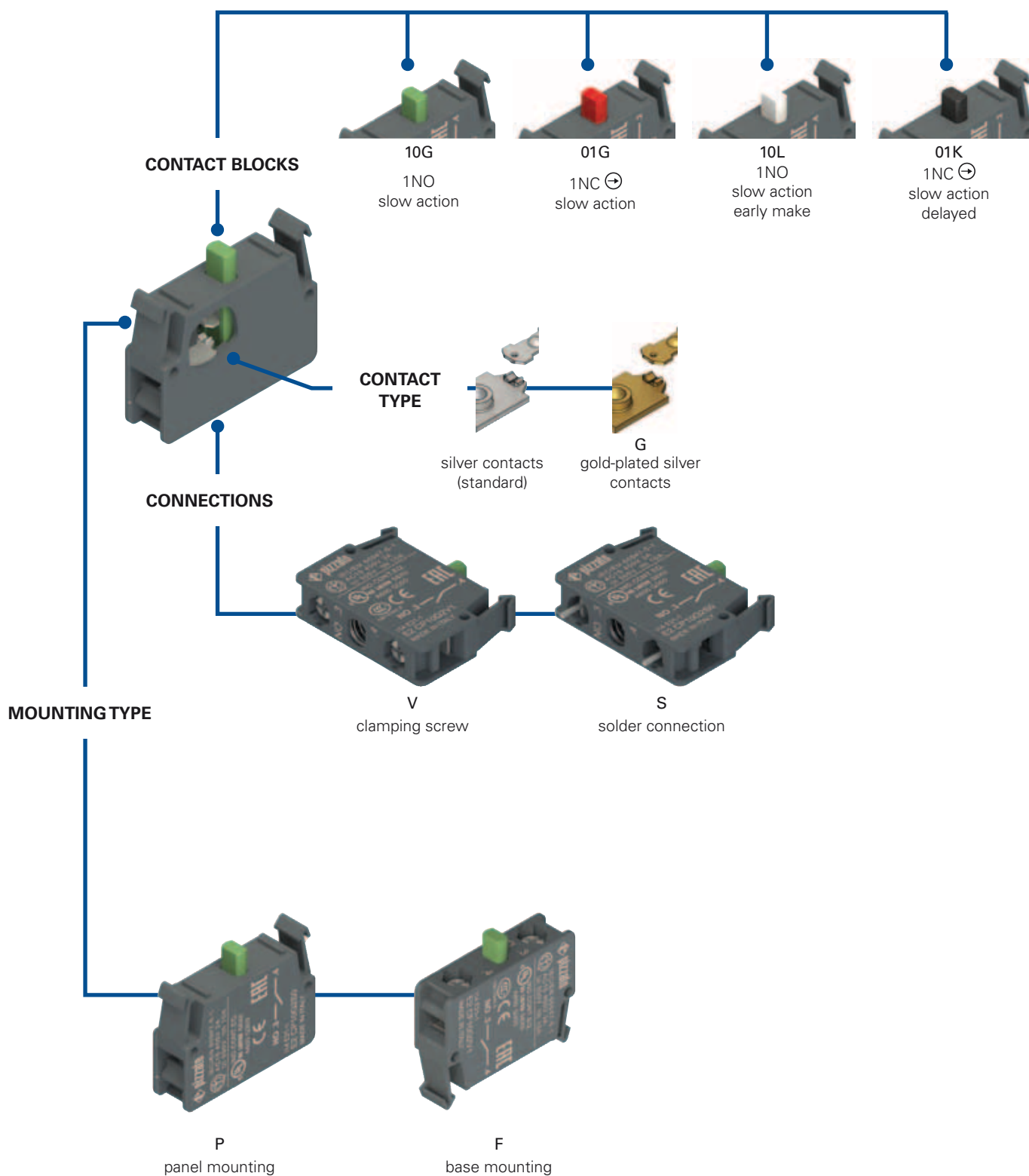
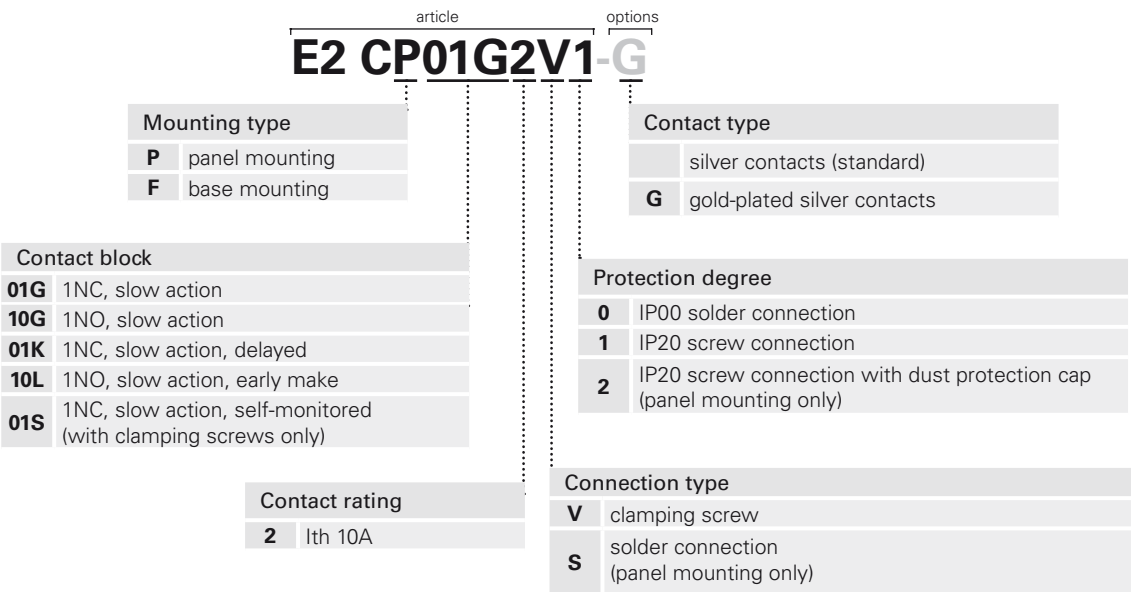


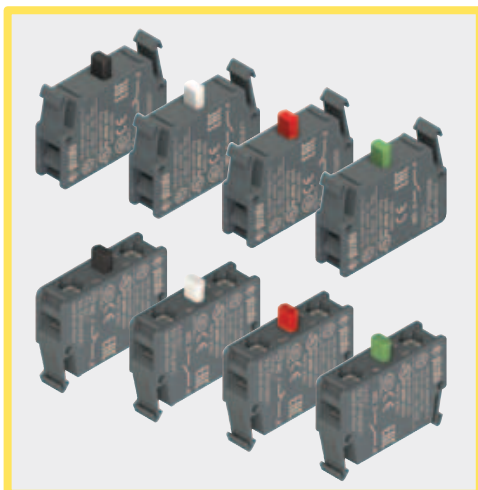
Selection diagram



Code structure

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





Main features

- Highly reliable contact blocks provided with self-cleaning contacts with quadruple support point
- Versions with gold-plated contacts
- Positive opening NC contacts acc. to IEC 60947-5-1

Quality marks:



IMQ approval: CA02.04805
 UL approval: E131787
 CCC approval: 2013010305631156
 EAC approval: RU C-IT DM94.B.01024

Technical data

General data

Protection degree acc. to EN 60529: IP20 with screw connection
 IP00 with solder connection
 Ambient temperature: -40°C ... +80°C
 Mechanical endurance: 20 million operating cycles
 Max. actuation frequency: 3600 operating cycles/hour
 Utilization requirements: See page 139

Contact block

Switching force of the contacts: 1.8 N (NO) / 1.4 N (NC)
 1.7 N (NO early make) / 1.4 N (NC delayed)
 Actuating force at limit of travel: 3.5 N (NO) / 2.3 N (NC)
 3.5 N (NO early make) / 1.9 N (NC delayed)
 Positive opening force: 17 N
 Actuation speed: min 1 mm/s
 max. 0.5 m/s
 Material of the contacts: Normal: silver contacts (standard)
 For low current: silver contacts with 1 µm gold coating (on request)
 Contact type: "V-shape" self-cleaning contacts with quadruple support point
 Cable cross section for clamping screws: min 1 x 0.5 mm² (1 x AWG 20)
 max. 2 x 2.5 mm² (2 x AWG 14)
 Clamping screw tightening torque: 0.6 ... 0.8 Nm
 Safety parameter B_{10D}: 1,000,000 (NO), 40,000,000 (NC)

In compliance with standards:

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

Installation for safety applications:

Use only contact blocks marked with the symbol The safety circuit must always be connected to **NC contacts** (normally closed contacts: .1-.2)

Compliance with the requirements of:

Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU.

Positive contact opening in conformity with standards:

IEC 60947-5-1, EN 60947-5-1.

Electrical data

Thermal current (I_{th}): 10 A
 Rated insulation voltage (U_i): 500 Vac/dc
 Protection against short circuits: type gG/gL fuse 10 A 500 V
 Rated impulse withstand voltage (U_{imp}): 8 kV
 Pollution degree: 3

Utilization category

Alternating current: AC15 (50 ... 60 Hz)

U _e (V)	24	48	120	250	400
I _e (A)	6	6	6	6	3

 Direct current: DC13

U _e (V)	24	48	125	250
I _e (A)	2.5	1.3	0.6	0.3

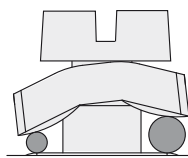
General data

Positive opening



All NC contacts are suitable for safety applications.
 The NC contacts are positive opening contacts acc. to IEC 60947-5-1.

Screw connection with clamping screw plates



The clamping screw plates of the contact blocks are provided with a particular "roofing tile" structure and are loosely coupled to the clamping screw. This way, during the wires fixing, the clamping screw plate is able to suit to cables of different diameters and tends to tighten the wires toward the screw instead of permitting them to escape towards the outside.

Features approved by UL

Utilization categories: A600 pilot duty (720 VA, 120 ... 600 Vac)
 Q300 pilot duty (69 VA, 125-250 Vdc)

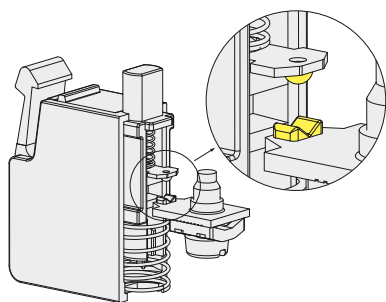
Notes:
 - Use 60° or 75°C Copper (Cu) conductors, rigid or flexible, with cross-section AWG 12-20.
 - Screw terminal tightening torque of 7.1 Lb In (0.8 Nm).

Features approved by IMQ

Rated insulation voltage (U_i): 500 V
 Conventional free air thermal current (I_{th}): 10 A
 Thermal current inside housing (I_{the}): 10 A
 Rated impulse withstand voltage (U_{imp}): 8 kV
 Protection degree of the housing: IP20
 Terminals: screw terminals
 Utilization category: AC15
 Operating voltage (U_e): 400 Vac (50/60 Hz)

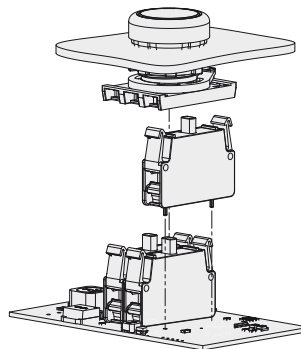
Operating current (I_e): 3 A
 Forms of the contact element: X, Y
 Positive opening of contacts on contact blocks 01G, 01K
 In compliance with standards: EN 60947-1, EN 60947-5-1 + A1:2009, fundamental requirements of the Low Voltage Directive 2014/35/EU.

High-reliability self-cleaning contacts



"V-shape" self-cleaning contacts with quadruple support point. This type of shape, thanks to the presence of the double support point, makes it possible to drastically reduce the probability of contact commutation failure. In addition to this, it improves considerably the reliability in the presence of dust.

Solder connection on printed circuit



Versions with panel mounting of the EROUND series contact blocks with solder pin are available. If there is no wiring but a printed circuit, these contact blocks can be directly welded on the latter.

Gold-plated silver contacts



The contact blocks can be supplied with silver electric contacts with a special gold-plated surface, with total gold thickness of one micron. This type of treatment can be useful in environments which are aggressive against silver and in case of very small electric charges, usually with low voltages and supply currents.

Selection table for contact blocks

Packs of 10 pcs.



Contact block	Panel mounting	
	Screw connection	Solder connection
1NC, slow action	E2 CP01G2V1 	E2 CP01G2S0
1NO, slow action	E2 CP10G2V1 	E2 CP10G2S0
1NC, slow action, delayed	E2 CP01K2V1 	E2 CP01K2S0
1NO, slow action, early make	E2 CP10L2V1 	E2 CP10L2S0

Contact block	Base mounting	
	Screw connection	
1NC, slow action	E2 CF01G2V1 	
1NO, slow action	E2 CF10G2V1 	
1NC, slow action, delayed	E2 CF01K2V1 	
1NO, slow action, early make	E2 CF10L2V1 	

Complete units with contact block and mounting adapter



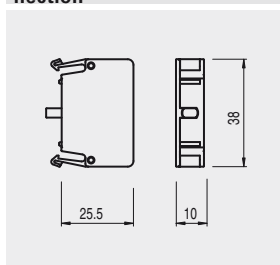
Contacts			Panel mounting
pos. 2	pos. 3	pos. 1	Screw connection
-	1NO	-	E2 AC-XXBC0010 E2 1BAC11 + E2 CP10G2V1
-	1NC	-	E2 AC-XXBC0009 E2 1BAC11 + E2 CP01G2V1

Contacts			Panel mounting
pos. 2	pos. 3	pos. 1	Screw connection
1NO	-	1NO	E2 AC-XXBC0012 E2 1BAC11 + E2 CP10G2V1 + E2 CP10G2V1
1NC	-	1NC	E2 AC-XXBC0011 E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1
1NC	-	1NO	E2 AC-XXBC0028 E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1

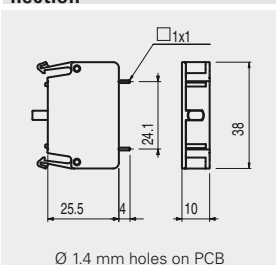
Dimensions

All measures in the drawings are in mm

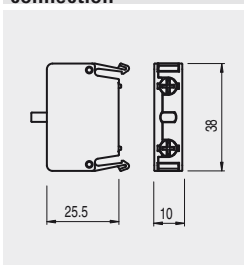
Contact blocks for panel mounting with screw connection



Contact blocks for panel mounting with solder connection



Contact blocks for base mounting with screw connection



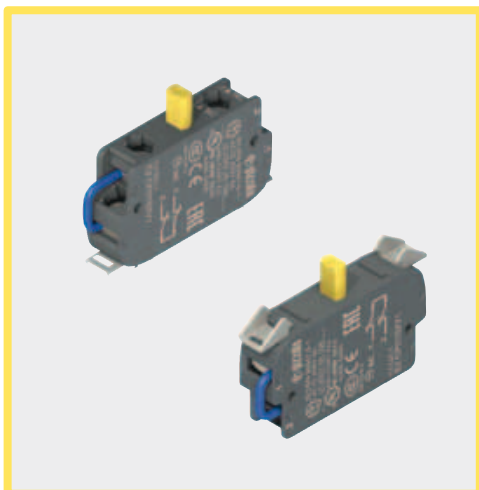
Other combinations on request.

Dust protection

Packs of 50 pcs.



Article	Description
VE PR3A70	Transparent dust protection for E2 series contact blocks. Suitable for all panel mounting contact blocks.



Main features

- Self-monitored contact block. Electrical circuit opening indicates the detachment from the device
- Versions with gold-plated contacts
- Positive opening NC contacts acc. to IEC 60947-5-1

Quality marks:



IMQ approval: CA02.04805
 UL approval: E131787
 CCC approval: 2013010305631156
 EAC approval: RU C-IT DM94.B.01024

Technical data

General data

Protection degree:	IP20 acc. to EN 60529 at the terminals
Ambient temperature:	-40°C ... +80°C
Mechanical endurance:	20 million operating cycles
Max. actuation frequency:	3600 operating cycles/hour
Utilization requirements:	See page 139

Contact block

Switching force of the contacts:	2.9 N
Actuating force at limit of travel:	5 N
Positive opening force:	17 N
Actuation speed:	min 1 mm/s max. 0.5 m/s

Material of the contacts:

Normal: silver contacts (standard)
 For low current: silver contacts with 1 µm gold coating (on request)

Contact type:

"V-shape" self-cleaning contacts with quadruple support point

Cable cross section:

min 1 x 0.34 mm² (1 x AWG 22)
 max. 2 x 1.5 mm² (2 x AWG 16)

Safety parameters:

B ₁₀₀ :	40,000,000 (NC)
Tightening torque of the terminal screws:	0.6 ... 0.8 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, UL 508, CSA 22-2 No. 14.

⚠ Installation for safety applications:

Use only contact blocks marked with the symbol ☺. The safety circuit must always be connected to **NC contacts** (normally closed contacts: .1-.2)

Compliance with the requirements of:

Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU.

Positive contact opening in conformity with standards:

IEC 60947-5-1, EN 60947-5-1.

Electrical data

Thermal current (I _{th}):	10 A
Rated insulation voltage (U _i):	250 Vac/dc
Protection against short circuits:	type gG/gL fuse 10 A 500 V
Rated impulse withstand voltage (U _{imp}):	4 kV
Pollution degree:	3

Utilization category

Alternating current: AC15 (50 ... 60 Hz)

U _e (V)	24	48	120	250
I _e (A)	6	6	6	6

Direct current: DC13

U _e (V)	24	48	125	250
I _e (A)	2.5	1.3	0.6	0.3

General data

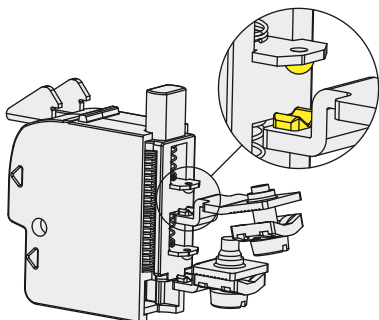
Positive opening



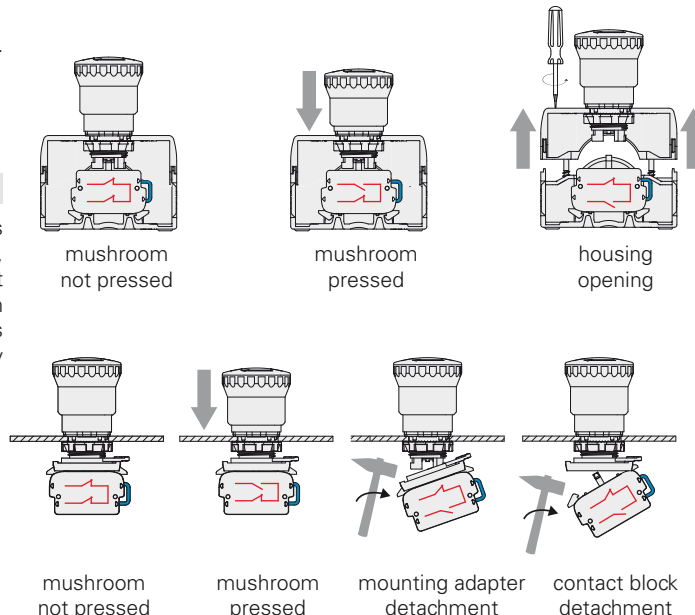
All NC contacts are suitable for safety applications. The NC contacts are positive opening contacts acc. to IEC 60947-5-1.

High-reliability self-cleaning contacts

"V-shape" self-cleaning contacts with quadruple support point. This type of shape, thanks to the presence of the double support point, makes it possible to drastically reduce the probability of contact commutation failure. In addition to this, it improves considerably the reliability in the presence of dust.



Functioning of self-monitored contact blocks



Features approved by UL

Utilization categories A300 pilot duty
 (720 VA, 120-240 V ac)
 Q300 pilot duty
 (69 VA, 125-250 V dc)

Note:

- "Use 60 or 75 °C copper (CU) conductor and wire size range 12-20 AWG, stranded or solid"
- "The terminal tightening torque of 7.1 Lb In (0.8 Nm)."

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

Features approved by IMQ

Rated insulation voltage (U_i): 250 V
 Conventional free air thermal current (I_{th}): 10 A
 Rated impulse withstand voltage (U_{imp}): 4 kV
 Protection degree of the housing: IP20 (clamping screw), IP00 (solder connection)

Utilization category: AC15
 Operating voltage (U_e): 250 Vac (50/60 Hz)
 Operating current (I_e): 6 A

Forms of the contact element: Y, Y+Y, X+X, Zb
 Positive opening of contacts on contact blocks 01S, 11G, 02G
 In compliance with standards: EN 60947-1:2007 + A1:2011, EN 60947-5-1:2004 + A1:2009, Compliance with the requirements of Low Voltage Directive 2006/95/CE.

Please contact our technical department for the list of approved products

Selection table for contact blocks

Packs of 5 pcs.



Contact block	Panel mounting Screw connection
1NC,  , self-monitored	E2 CP01S2V1 2.3 1.1 0 1.1  2.1 5



Contact block	Base mounting Screw connection
1NC,  , self-monitored	E2 CF01S2V1 2.3 1.1 0 1.1  2.1 5

The self-monitored contact block with base mounting can be installed only in the central position under the device. The central position on the bottom of the housing is identified with number 3.

Complete units with contact block and mounting adapter



Contacts			Panel mounting Screw connection
pos. 2	pos. 3	pos. 1	
-	1NC  SELF-MONITORED	-	E2 AC-XXBC0139 E2 1BAC11 + E2 CP01S2V1

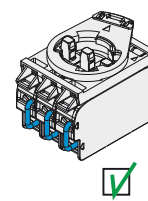
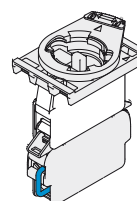
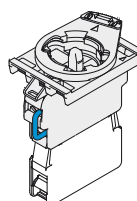
Other combinations on request.

Installation of several single, double and self-monitored contact blocks

Always install self-monitored contact blocks directly on the mounting adapter.

Do not install self-monitored contact blocks on standard contact blocks. Forbidden application!

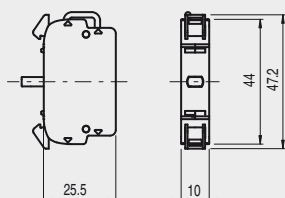
Per each emergency button no more than three self-monitored contact blocks can be installed.



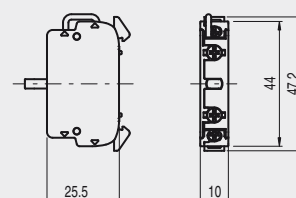
Dimensions

All measures in the drawings are in mm

Contact block for panel mounting E2 CP01S...



Contact block for base mounting E2 CF01S...



Dust protection

Packs of 50 pcs.

Article	Description
 VE PR3A70	Transparent dust protection for E2 series contact blocks. Suitable for all panel mounting contact blocks.

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

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