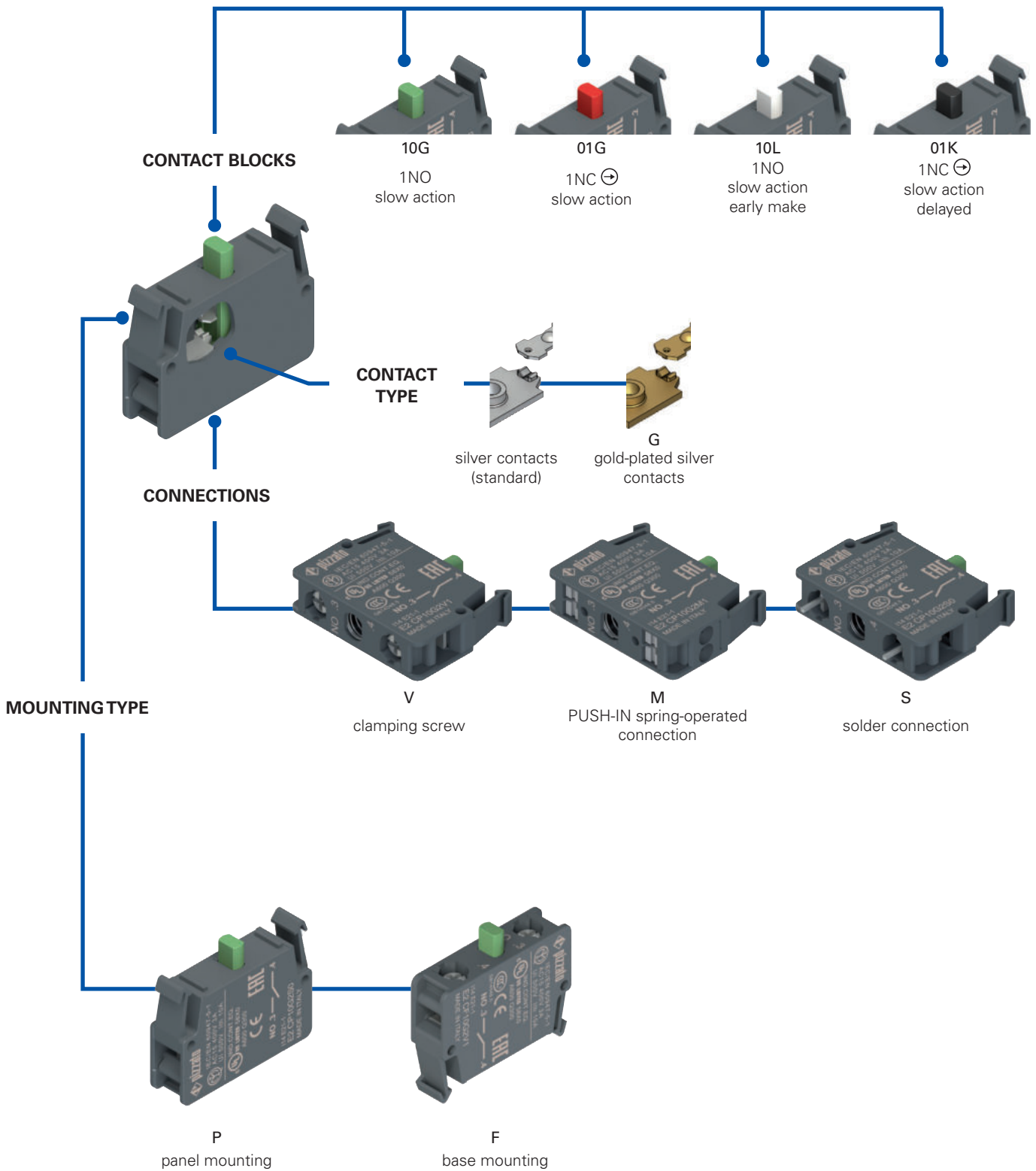
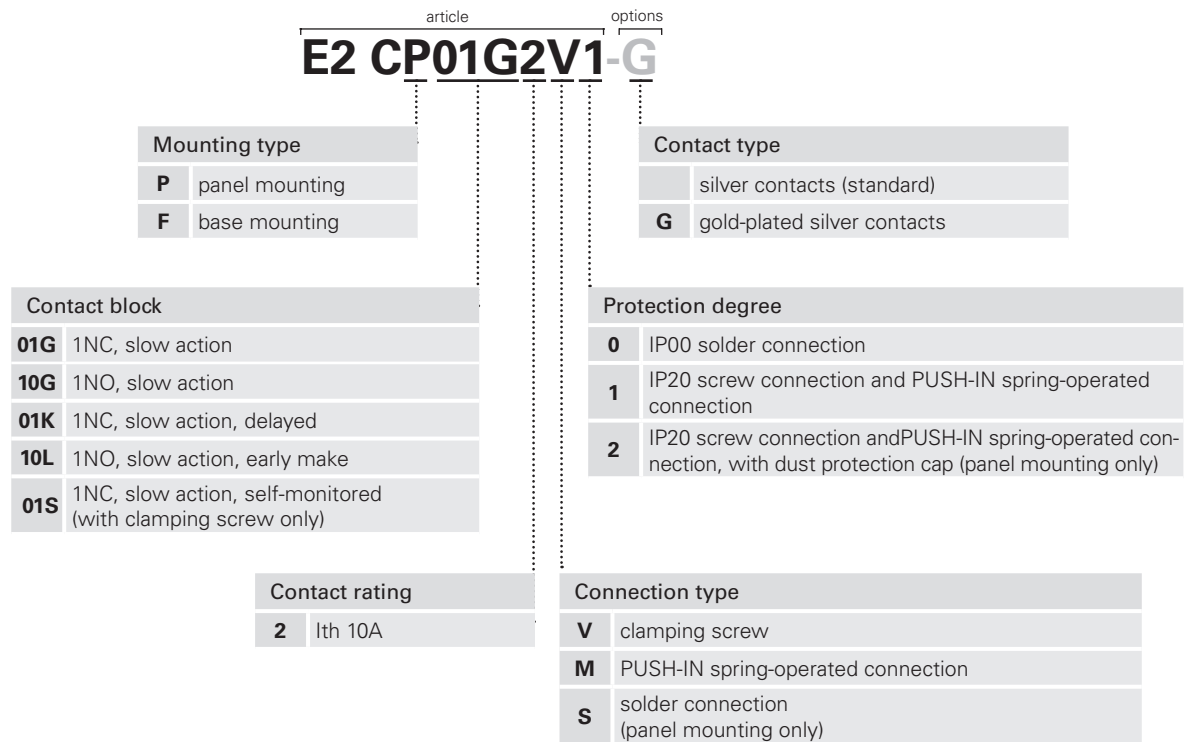


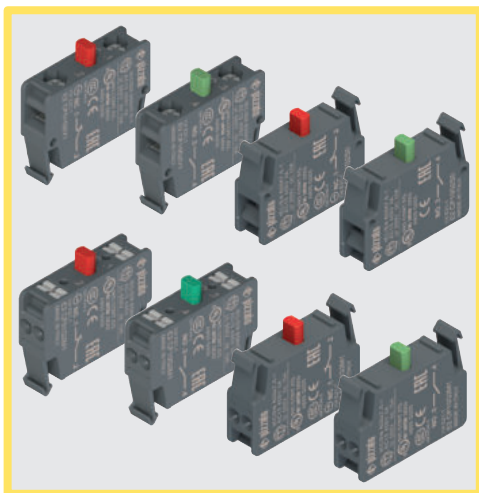
Selection diagram



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 contact point
- Versions with gold-plated contacts
- Positive opening NC contacts acc. to IEC 60947-5-1
- Screw, PUSH-IN spring, or solder connections.

Quality marks:



IMO approval:	CA02.04805
UL approval:	E131787
CCC approval:	2020970305002289
EAC approval:	RU C-IT.YT03.B.00035/19

Technical data

General data

Protection degree acc. to EN 60529:	IP20 with screw connection IP20 with PUSH-IN spring-operated 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 163

Contact block

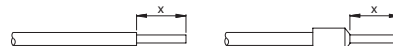
Switching force of the contacts:	1.8 N (NO) / 1.4 N (NC) 1.7 N (NO early make) / 1.4 N (NC delayed)
Actuating force at limit of travel:	3.5 N (NO) / 2.3 N (NC) 3.5 N (NO early make) / 1.9 N (NC delayed)
Positive opening force:	17 N
Actuation speed:	min 1 mm/s max. 0.5 m/s
Safety parameter B_{10D} :	1,000,000 (NO), 40,000,000 (NC)
Material of the contacts:	Silver contacts (standard) For low current: silver contacts with 1 µm gold coating (on request)
Contact type:	"V-shape" self-cleaning contacts with quadruple contact point

Clamping screw connection

Cable cross section:	min 1 x 0.5 mm ² (1 x AWG 20) max 2 x 2.5 mm ² (2 x AWG 14)
Tightening torque:	0.6 ... 0.8 Nm
Cable stripping length (x):	8 mm

PUSH-IN spring-operated connection


Cable cross section (flexible conductors, with or without wire-end sleeve):	min. 1 x 0.25 mm ² (1 x AWG 24) max. 2 x 1.5 mm ² (2 x AWG 16)
Cable stripping length (x):	min. 8 mm, max. 10 mm



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 22-2 No. 14, GB/T14048.5

⚠ 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,
RoHS Directive 2011/65/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 screw and solder connection 6 kV PUSH-IN spring-operated connection
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	

Features approved by UL

Electrical ratings: A600 pilot duty (720 VA, 120-600 Vac)
Q300 pilot duty (69 VA, 125-250 Vdc)

Note:
For contact block series E2 C provided with clamping screw terminals: use 60 or 75 °C copper (Cu) conductor and wire size range 14-20 AWG, stranded or solid. The terminal tightening torque of 7.1 Lb In (0.8 Nm).

For contact block series E2 C provided with screw less type terminals: use 60 or 75 °C copper (Cu) conductor and wire size range 16-24 AWG, stranded. These terminals are suitable also for stranded conductors prepared with ZMLF ferrules. Recommended stripping length: 8 mm.

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

Features approved by IMQ

Rated insulation voltage (Ui):	500 V
Conventional free air thermal current (Ith):	10 A
Thermal current inside housing (Ithe):	10 A
Rated impulse withstand voltage (Uimp):	
screw terminals or solder terminals	8 kV
terminals without screw	6 kV
Protection degree of the housing:	
screw terminals or terminals without screw	IP20
solder terminals	IP00
screw terminals with dust protection cap, panel mounting only	IP20
Terminals: screw terminals, solder terminals, without screw	
Utilization category:	AC15
Operating voltage (Ue):	400 Vac (50/60 Hz)
Operating current (Ie):	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, fundamental requirements of the Low Voltage Directive 2014/35/EU.	

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

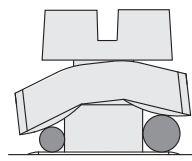
General data

Positive opening



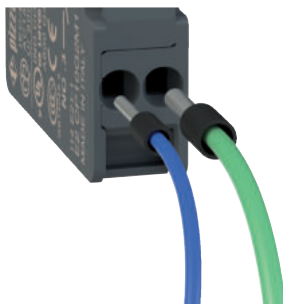
All NC contacts are suitable for safety applications. The NC contacts are positive opening contacts acc. to IEC 60947-5-1.

Screw connection with clamping screw plates

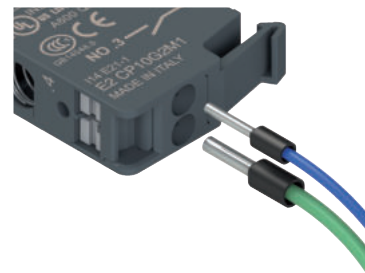


The clamping screw plates of the contact blocks are provided with a particular "roofing tile" structure and are loosely coupled to the clamping screw. This way, during the wires fixing, the clamping screw plate is able to suit to cables of different diameters and tends to tighten the wires toward the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

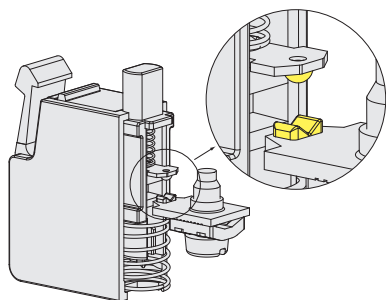
PUSH-IN spring-operated connection



The PUSH-IN spring connection allows quick and simple wiring, as the wire just needs to be inserted into the appropriate hole in order to establish the electrical connection and automatically secure the wire. The reduced force required to insert the wire allows completely tool-free connection by using wires with crimped wire-end sleeves. They are released by pressing a special wire release button - including individually - with any tool, without the need to use a screwdriver of a predefined size. In addition, the contact block has holes for insertion of tester tips, so that electrical measurements can be carried out, without having to remove the connecting cables.

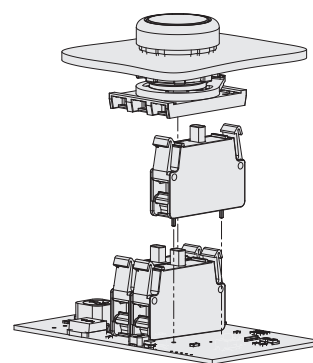


High-reliability self-cleaning contacts



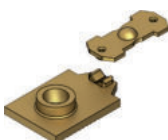
"V-shape" self-cleaning contacts with quadruple contact point. This type of shape, thanks to the presence of the double contact point, makes it possible to drastically reduce the probability of contact commutation failure. In addition to this, it improves considerably the reliability in the presence 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			Base mounting	
	Screw connection	PUSH-IN spring-operated connection	Solder connection	Screw connection	PUSH-IN spring-operated connection
1NC, \ominus slow action	E2 CP01G2V1 	E2 CP01G2M1 	E2 CP01G2S0 	E2 CF01G2V1 	E2 CF01G2M1
1NO, slow action	E2 CP10G2V1 	E2 CP10G2M1 	E2 CP10G2S0 	E2 CF10G2V1 	E2 CF10G2M1
1NC, \ominus slow action, delayed	E2 CP01K2V1 	E2 CP01K2M1 	E2 CP01K2S0 	E2 CF01K2V1 	E2 CF01K2M1
1NO, slow action, early make	E2 CP10L2V1 	E2 CP10L2M1 	E2 CP10L2S0 	E2 CF10L2V1 	E2 CF10L2M1

Complete units with contact block and mounting adapter



Contacts			Panel mounting	
pos. 2	pos. 3	pos. 1	Screw connection	PUSH-IN spring-operated connection
-	1NO	-	E2 AC-XXBC0010 E2 1BAC11 + E2 CP10G2V1	E2 AC-XXBC0147 E2 1BAC11 + E2 CP10G2M1
-	1NC \ominus	-	E2 AC-XXBC0009 E2 1BAC11 + E2 CP01G2V1	E2 AC-XXBC0146 E2 1BAC11 + E2 CP01G2M1

Other combinations on request.

Contacts			Panel mounting	
pos 2	pos 3	pos 1	Screw connection	PUSH-IN spring-operated
1NO	-	1NO	E2 AC-XXBC0012 E2 1BAC11 + E2 CP10G2V1 + E2 CP10G2V1	E2 AC-XXBC0149 E2 1BAC11 + E2 CP10G2M1 + E2 CP10G2M1
1NC \ominus	-	1NC \ominus	E2 AC-XXBC0011 E2 1BAC11 + E2 CP01G2V1 + E2 CP01G2V1	E2 AC-XXBC0148 E2 1BAC11 + E2 CP01G2M1 + E2 CP01G2M1
1NC \ominus	-	1NO	E2 AC-XXBC0028 E2 1BAC11 + E2 CP10G2V1 + E2 CP01G2V1	E2 AC-XXBC0150 E2 1BAC11 + E2 CP10G2M1 + E2 CP01G2M1

Other combinations on request.

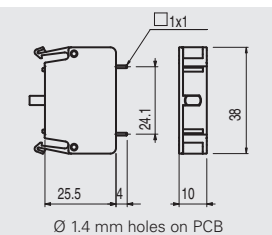
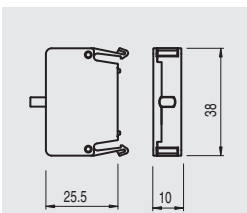
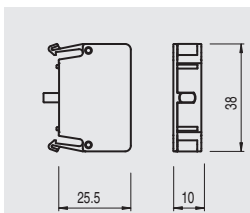
Dimensions

All values in the drawings are in mm

Contact blocks for panel mounting with screw connection, PUSH-IN spring-operated connection

Contact blocks for base mounting, with screw connection, PUSH-IN spring-operated connection

Contact blocks for panel mounting with solder connection



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

