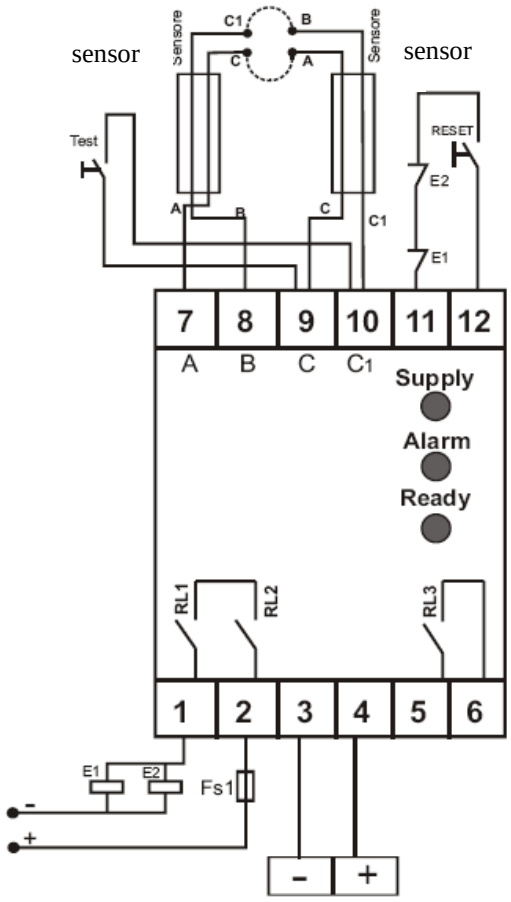
ELECTRONIC CONTROL DEVICE TYPE GP02/E

Features: Control unit for safety stop of a standard blade contact safety sensor of a mats, edge or shock absorber with one OUTPUT SAFETY CONTACT and one SIGNALING CONTACT.
The safety contact, normally energized, will open in case of no power supply, operation of the sensor, interruption of the sensor or cut-off to the relative wiring to the sensor. The unit is normally supply with **AUTOMATIC RESET** but could be transformed into **MANUAL RESET** by the user

Classification		
Reference standard		EN ISO 13849-1, EN 13856 part 1, 2 e 3, EN 60947-5-1, EN 50205 (type A)
PL		e
Category		3
PFH (1/h)		$4{,}29*10^{-8}$
Usage categories		DC13 – 1,5 A AC1 – 3 A
N° of operations/year	Combined with mat	50000
	Combined with bumper	7000
	Combined with edge	5000
Mission Time (years)		20
Electrical data		
Supply voltage		24 VDC ± 10%
Current consumption with mat activated (24VDC)		15 mA
Current consumption with reset module (24VDC)		90 mA
International protection of power supply		YES (1 A)
Inputs		
Input short-circuit detection		YES
Input connection interruption detection		YES
Max length of connection cables		100 m
Min section of connection cables		0,35 mm^2 (1 mm^2 for cable length >20 m)
Max resistance of sensor		40 ohm
Voltage applied to inputs		24 VDC
Max current (peak value)		200 mA
Safety outputs		
Number of safety outputs		1
Rated voltage/Max switchable voltage VAC		250 / 400
Max switchable current (A)		6 in DC
Max switchable AC power (VA)		1500
Nominal current (A)		6
Material of standard contacts		AgNi
Rated supply voltage	V AC50/60hz	-
	V DC	24
Rated power (W)		0,7
Delay to energizing (reset)		25 ms (typical)
Delay to de-energizing (trip)		10 ms (typical)
Protection against over-current		6 A fast / 4 A delayed
Mechanical life		10^7
Signal outputs		
Number of signal outputs		1
Max operation voltage	VAC	125
	VDC	30
Max. current 110VAC		0,2A
Max. current 24VDC		0,5A
Environmental characteristics		
Operating temperature [°C]		0 / +50
Storage temperature [°C]		-25 / +70
Max relative humidity		85%
Degree of protection of terminals		IP20
Degree of protection of casing		IP30
Dimensions		
Width [mm]		35
Height [mm]		90
Depth [mm]		70
Weight [g]		150
Material of the casing		ABS self-extinguishes
Installation		DIN RAIL Omega 35 mm

Connection diagram control unit GP02/E

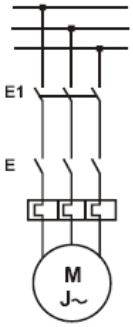


E-E1 - external emergency safety contactors (at customer care)

Direct stop

Stop with two contactors

Motor Stop with two contacts



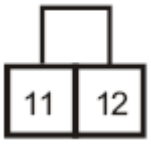
Connection	
1-2	Safety output NO
3	Supply 24 VCC (-)
4	Supply 24 VCC (+)
5-6	Auxiliary signalling contact
7-8-9-10	Sensor power and feedback
11-12	Reset / feedback (see following pages)
Signalling Led	
Supply (RED)	RED - Power ON
Alarm (RED)	RED - Alarm
Ready (GREEN)	GREEN - Unit ready

RESET / FEEDBACK

Automatic Reset

Without feedback

– Shunt 11 -12
– Insert jumper j1 - j 2 - j3 - j4 (see attached fig. A)



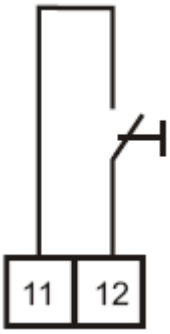
With feedback

– Insert jumper j1 - j2 - j3 - j4 (see attached fig. A)
– Link feedback loop to 11 - 12 terminals

Manual reset

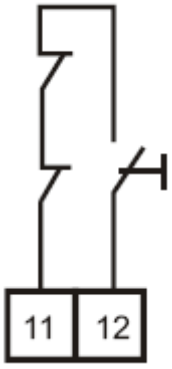
Without feedback

– Insert jumper j1 - j2 - j3 - j4 - j34 (see attached fig. B)
– Link reset button, NO without supply on 11 - 12 terminals



With feedback

– Insert jumper j1 - j2 - j3 - j4 - j34 (see attached fig. B)
– Link reset button, NO without supply on 11 - 12 terminals
– Link feedback loop in series with reset button



ATTENTION:
THE DEVICE, IF NOT DIFFERENT SPECIFY IN ORDER, WILL BE SUPPLYED ON THE CONFIGURATION AUTOMATIC RESET.
THE CONFIGURATION COULD BE MODIFY INTO MANUAL REST AT CUSTOMER CARE FOLLOWING CAREFULLY THE INSTRUCTION WRITTEN ABOVE

POSITIONING DIAGRAM OF JUMPER
FOR MANUAL OR AUTOMATIC RESET SELECTION

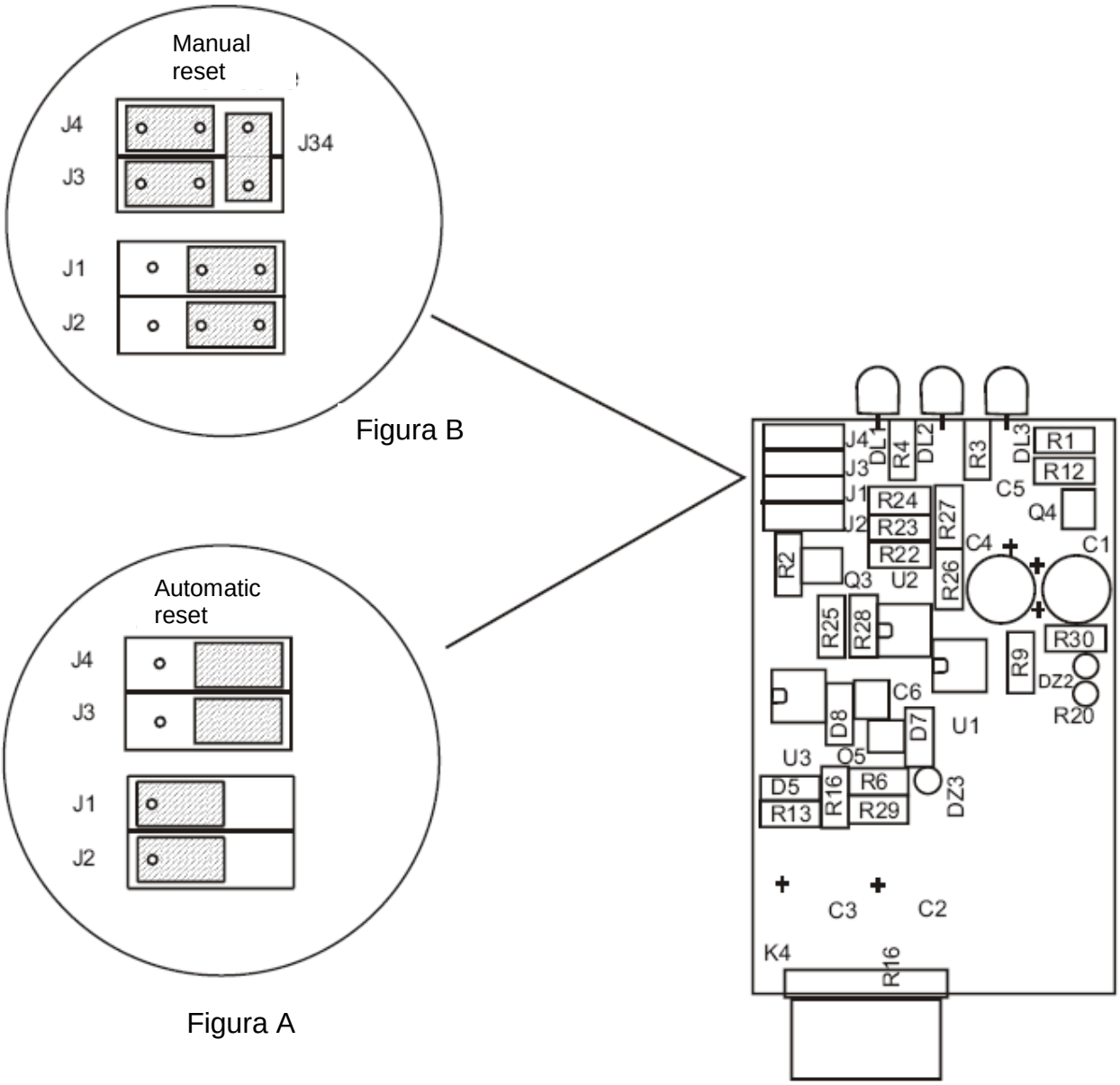


Figura B

Figura A

Trouble shooting	Supply (red)	Alarm (red)	Ready (green)
Sensor not activated Unit not restarted	ON	OFF	OFF
Sensor not activated Unit restarted	ON	ON	ON
Sensor activated	ON	OFF	OFF
Sensore faulty	ON	OFF	OFF
CH1 faulty	ON	OFF	ON
CH2 faulty	ON	ON	OFF