



SAFETY RELAY MODEL GP02R.T and GP02R.T1



Features: Control unit for emergency stop, used to manage safety sensor of mat, edge or shock absorber with traditional blade sensor, having two safety relays contact output and one signaling contact. The two relays, normally excited, are de-energized 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 device is configured for **AUTOMATIC RESET** or **MANUAL RESET**.

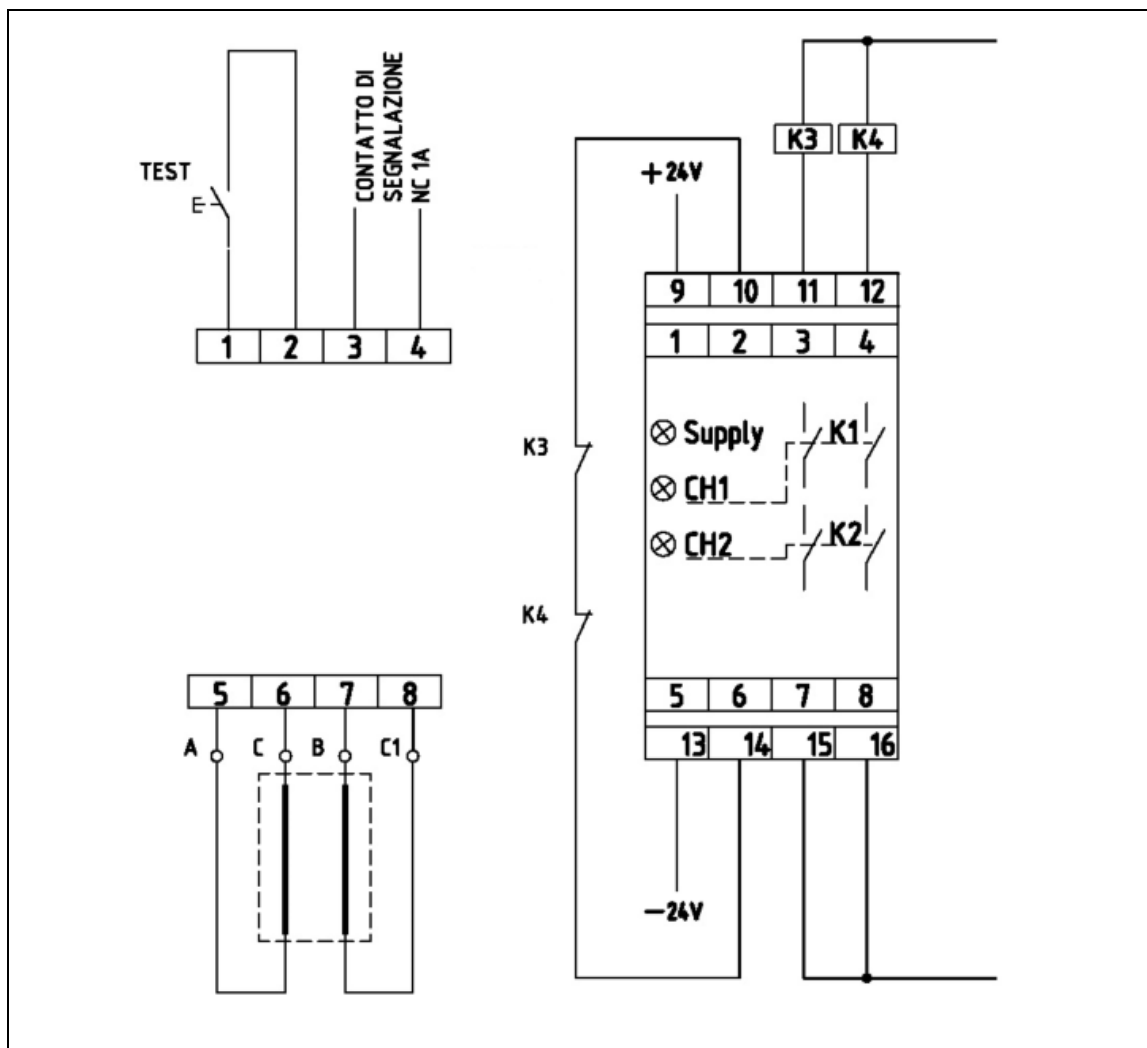


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TECHNICAL DATA SHEET GP02R.T and GP02R.T1

Classification		
Reference standard		EN ISO 13849-1, EN 1760 part 1, 2 e 3, EN 60947-5-1, EN 50205 (type A)
PL		e
Category		3
PFH (1/h)		4,29*10 ⁻⁸
N° of operations/year		50000
Usage categories		AC15 – 1,2 A
Mission Time (years)		20
Electrical data		
Supply voltage		24 VDC ± 10%
Current consumption with mat activated (24VDC)		12 mA
Current consumption with reset module (24VDC)		110 mA
International protection of power supply		YES (280 mA)
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		100 ohm
Voltage applied to inputs		24 VDC
Max current (peak value)		200 mA
Safety outputs		
Number of safety outputs		2
Rated voltage/Max switchable voltage VAC		230 / 300
Max switchable current AC 15 230 V / DC13 VDC (A)		4 / 2
Max switchable AC power (VA)		1500
Nominal current AC15 230 VAC / DC13 VDC (A)		1,5 / 1,2
Material of standard contacts		AgSnO ₂
Rated supply voltage	V AC50/60hz	-
	V DC	24
Rated power (W)		0,25
Delay to energizing (reset)		12 ms
Delay to de-energizing (trip)		13 ms
Protection against over-current		4 A fast / 2 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]		-25 / +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]		22,5
Height [mm]		114
Depth [mm]		99
Weight [g]		140
Material of the casing		PA66-FR
Installation		DIN RAIL Omega 35 mm

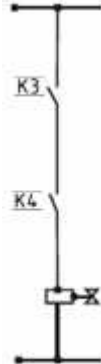
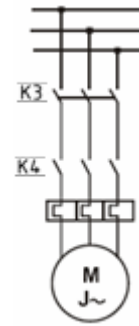
Connection diagram control unit GP02R.T (AUTO RESET)



Connection

1-2	Test
3-4	Aux NO contact for signaling
5	Safety sensor BROWN
6	Safety sensor BLUE
7	Safety sensor BLACK
8	Safety sensor BLACK
9	+24 VDC
10 - 14	bridge for auto-reset
Reset and feedback	
11 - 15	Safety output NC
12-16	Safety output NC
13	Negative of power supply (-)
Signalling Led	
L1 Power (Green)	Power ON
L2 CH1 (Red)	OSSD Channel 1 active
L3 CH2 (Red)	OSSD Channel 2 active

K3, K4 – External emergency safety contactors (at customer care)

Direct shut off**Direct shut off with 2 contactors****Motor shut off with 2 contactors****RESET / FEEDBACK****Automatic Reset (type GP02R.T)**

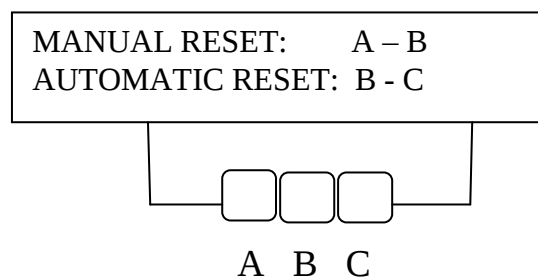
Without feedback : Link terminals 10 and 14. Insert JP2 between B and C inside the card.

With feedback : Connect the feedback circuit between terminals 10 and 14. Insert JP2 between B and C inside the card

Manual Reset (type GP02R.T1)

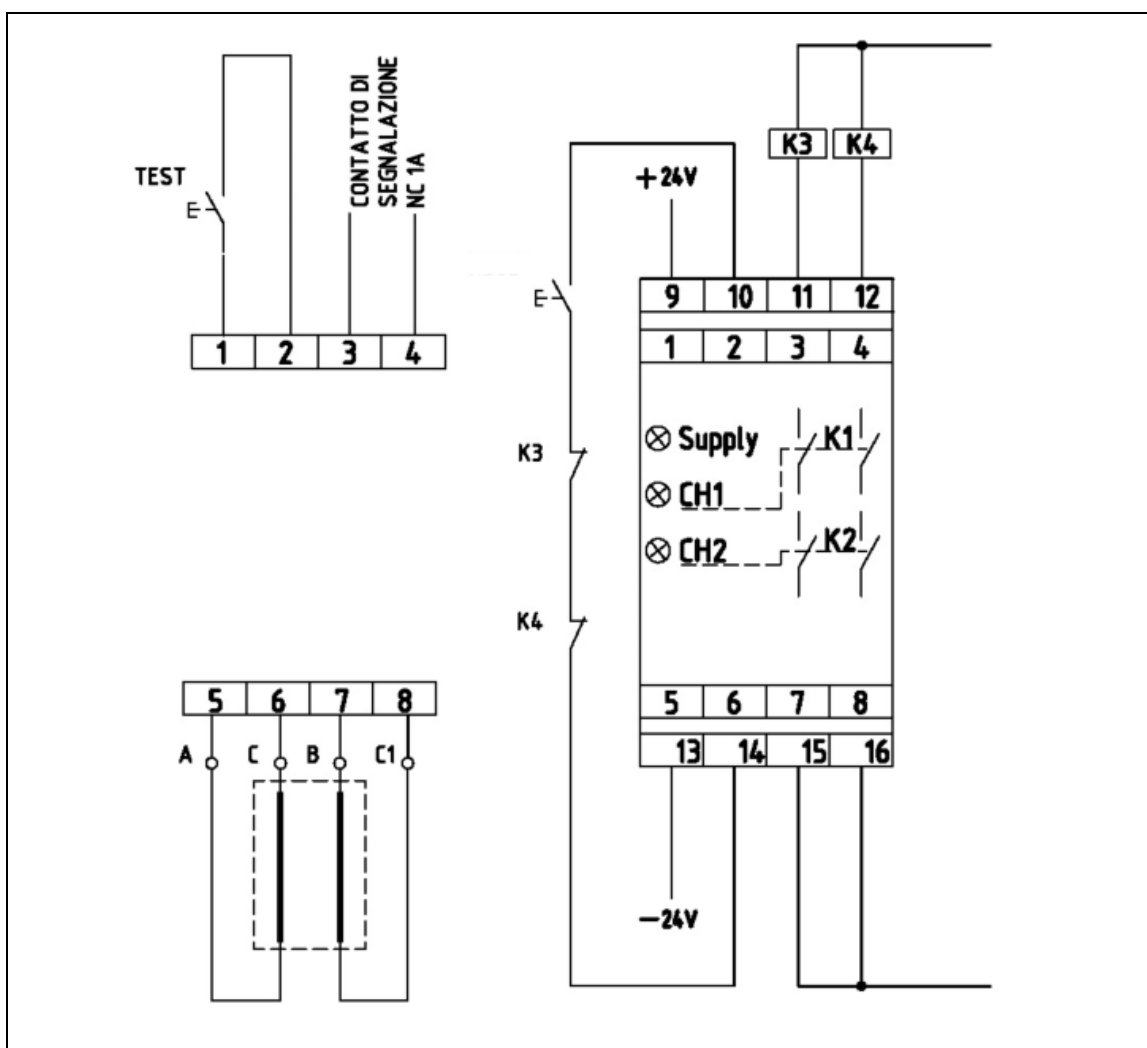
Without feedback : Link reset contact (N.O.) between terminals 10 and 14. Insert JP2 between A and B inside the card

With feedback : Connect the feedback circuit on series of reset contact (N.O.) between terminal 10 and 14. Insert JP2 between A and B inside the card

Bridge inside the card.

Trouble shooting	Led L1	Led L2	Led L2
Sensor not activated	ON	ON	ON
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

Connection diagram control unit GP02R.T1 (MANUAL RESET)



Connection

1-2	Test
3-4	Aux NO contact for signaling
5	Safety sensor BROWN
6	Safety sensor BLUE
7	Safety sensor BLACK
8	Safety sensor BLACK
9	+24 VDC
10 - 14	NO pushbutton
Reset and feedback	
11 - 15	Safety output NC
12-16	Safety output NC
13	Negative of power supply (-)
Signalling Led	
L1 Power (Green)	Power ON
L2 CH1 (Red)	OSSD Channel 1 active
L3 CH2 (Red)	OSSD Channel 2 active

K3, K4 – External emergency safety contactors (at customer care)