



ELECTRONIC CONTROL DEVICE GP02R



Features : Control unit for safety stop of resistive (value 8,2 K Ω) safety sensor. Closing of sensor contact will act the opening of the safety contact of the control unit. The control unit verify also the short circuit or the cut-off of the sensor or to the relative connection wiring

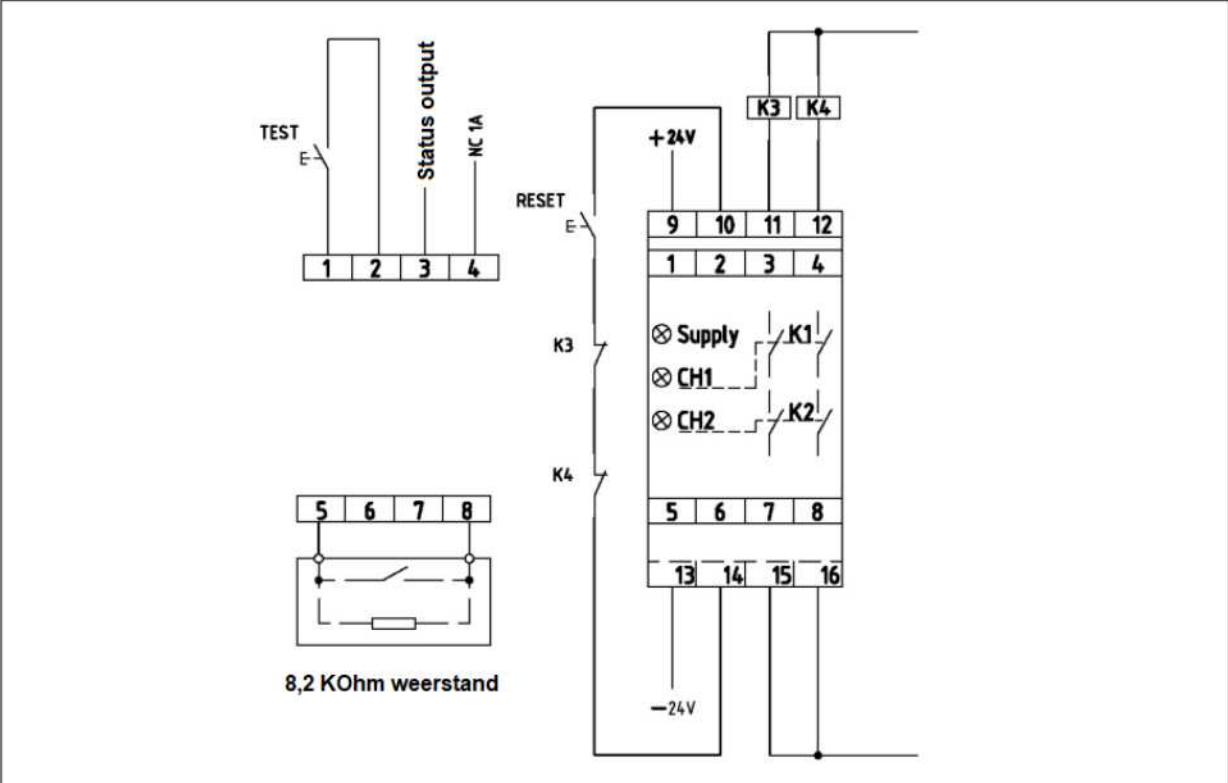


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TECHICAL DATA SHEET GP02R-8,2K – GP02R-C 8,2K

Classification			
Reference standard		EN ISO 13849-1, EN 1760 part 2, EN 60947-5-1, EN 50205 (type A)	
PL		e	
DC[%]		On the average	
Categoria		3	
PFH (1/h)		4,29*10 ⁻⁸	
Usage categories			
N° of operations/year	50000 (with a mat)	AC15(230) – 1,2 A	AC1(230) 2 A DC13 (24) 1 A
	7000 (with a bumper)	AC15(230) - 4 A	AC15 (230)/DC13(24) 3 A
	5000 (with a edge)	AC15 (230) 4 A	AC15 (230)/DC13(24) 3 A
Mission time [year]		20	
Electrical data			
Supply voltage		24 VDC ± 10%	
Corrent consumption with mat activated (24VDC)		15 mA	
Corrent consumption with reset module (24VDC)		≤ 120 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 lenght >20 m)	
Max resistance of sensor		40 ohm (20 ohm per canale)	
Voltage applied to inputs		24 VDC	
Max current		200 mA	
Safety output			
Number of safety outputs		2	
Rated voltage/Max switchable voltage [VAC/VDC]		230 / 300	
Max switchable AC15 (230V) / DC13 VDC[A]		4 / 2	
Max switchable AC power [VA]		1500	
Nominal current AC15 (230V) / DC13 VDC[A]		1,5 / 1,2	
Materiale of standard contacts		AgSnO ₂	
Rated supply voltage	V AC (50/60 Hz)	-	
	V DC	24	
Rated power AC/DC VA (50 Hz)/W		-/0,25	
Delay to energizing (reset)		12 ms	
Delay to de-energizing (trip)		17 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	
Enviromental characteristics			
Operating temperature [°C]		-20 / 55	
Storage temperature [°C]		-25 /+70	
Max relative humidity		85%	
Degree of protection of terminals		IP20	IP20
Degree of protection of casing		IP30	IP56
Dimensions			
Width[mm]		22,5	120
Height [mm]		114	75
Depth [mm]		99	155
Weight [g]		140	410
Material of the casing		PA66-FR	GW PLAST 75
Installation		DIN rail Omega 35mm	DIN RAIL by screws

CONNECTION DIAGRAM CONTROL UNIT GP02R (8,2 KΩ) (MANUAL RESET)



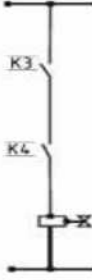
Connection	
1-2	Test Relay (*)
3-4	Contact for signalling
5-8	Safety edge
9	Positive of power supply (+)
13	Negative of power supply (-)
10-14	NO Push button for Reset
11-15	Safety output
12-16	Safety output
Signalling Led	
L1 Supply (Green)	Power ON
L2 CH1 (Red)	OSSD channel1
L3 CH2 (Red)	OSSD channel2
(*) With control device and sensors connected allows the verify of the Relays functionality	

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

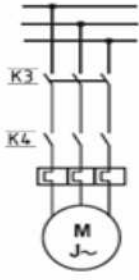
Direct shut off



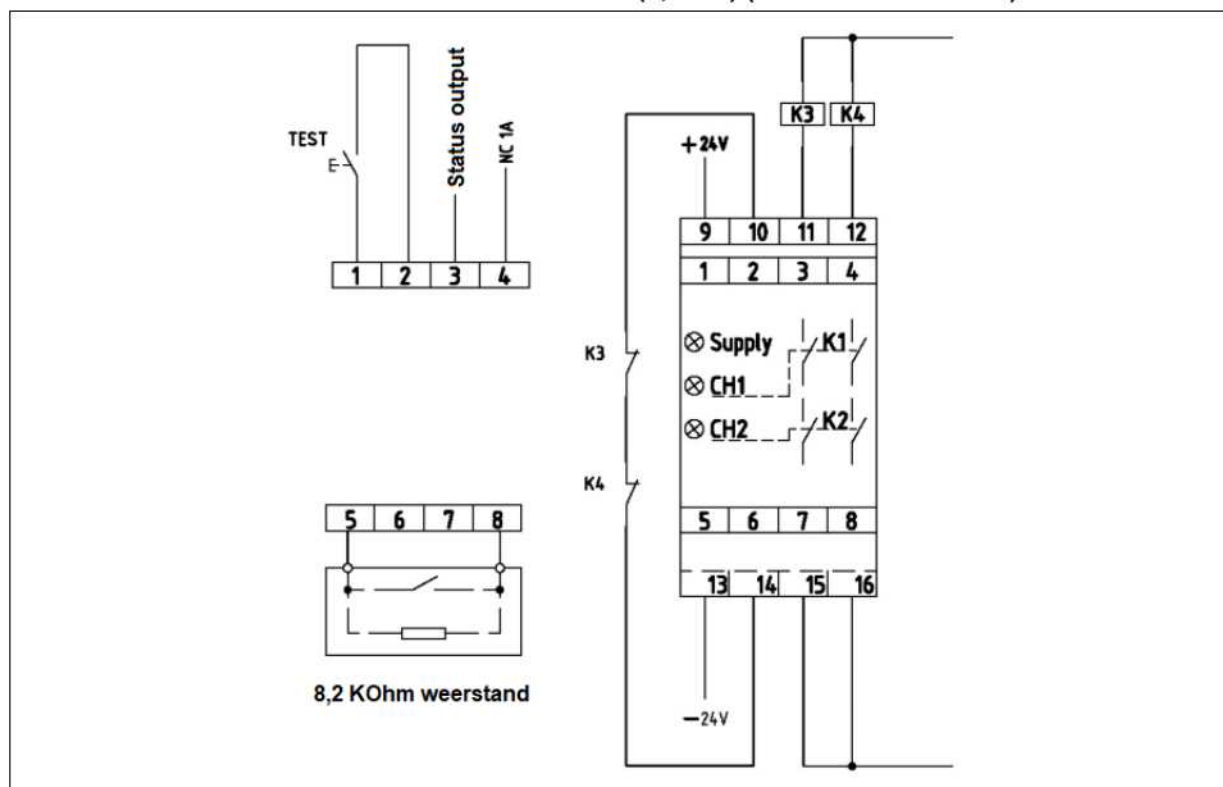
Direct shut off with 2 contactors



Motor shut off with 2 contactors



CONNECTION DIAGRAM CONTROL UNIT GP02R (8,2 K Ω) (AUTOMATIC RESET)



Connection

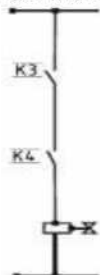
1-2	Test Relay (*)
3-4	Contact for signalling
5-8	Safety edge
9	Positive of power supply (+)
13	Negative of power supply (-)
10-14	Bridge for Automatic Reset
11-15	Safety output
12-16	Safety output
Signalling Led	
L1 Supply (Green)	Power ON
L2 CH1 (Red)	OSSD channel1
L3 CH2 (Red)	OSSD channel2
(*) With control device and sensors connected allows the verify of the Relays functionality	

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

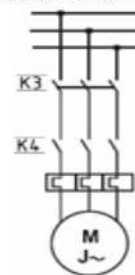
Direct shut off



Direct shut off with 2 contactors



Motor shut off with 2 contactors



Trouble shooting	L1 Supply	L2 CH1	Led CH2
Sensor not activated Unit not restarted	ON	OFF	OFF
Sensor not activated Unit restarted	ON	ON	ON
Sensor activated	ON	OFF	OFF
Sensor faulty	ON	OFF	OFF
CH1 faulty	ON	OFF	ON
CH2 faulty	ON	ON	OFF

RESET / FEEDBACK GP02R

Automatic Reset

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

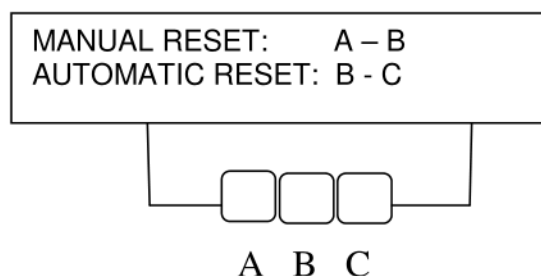
With feedback : Connect the feedback circuit between terminals 10 and 14. Insert JP2 between B and C inside the card

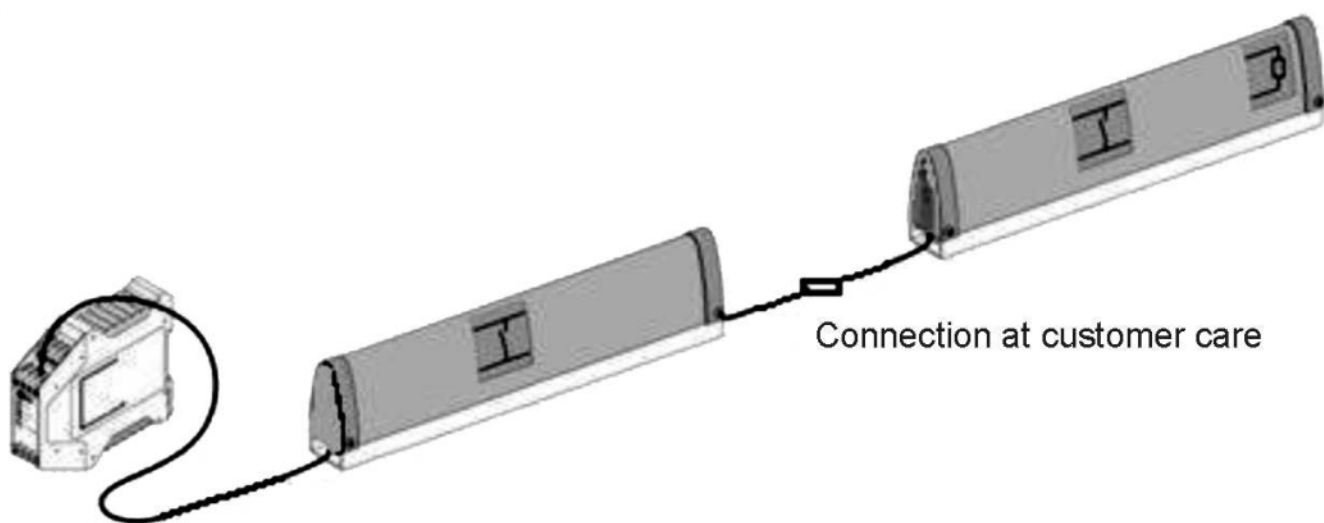
Manual Reset

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.





Connection at customer care