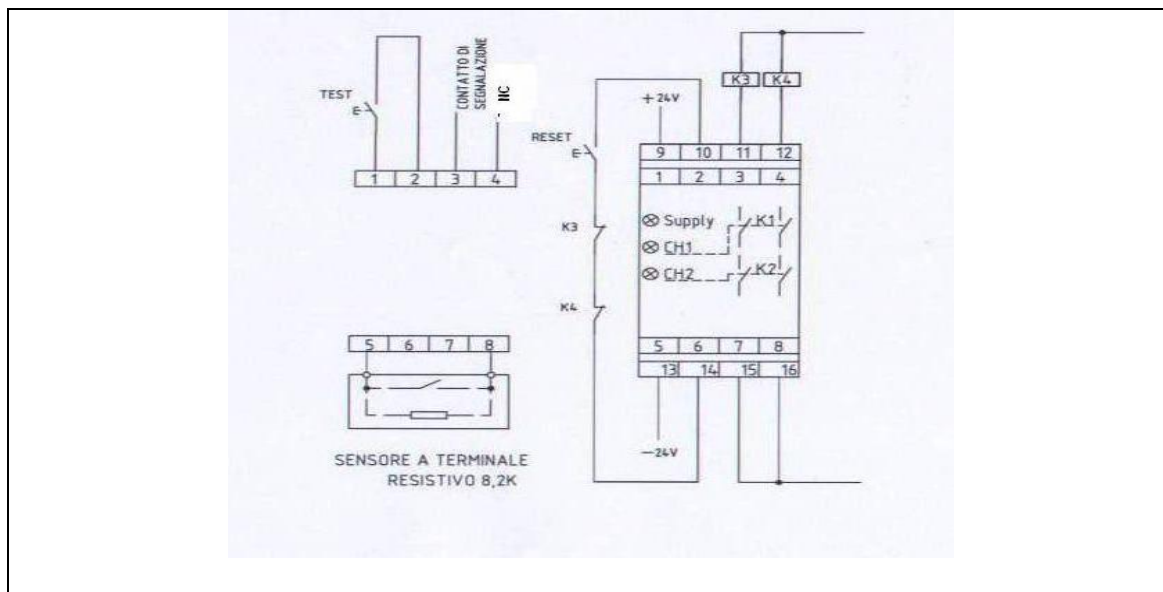


## CONTROL UNIT TYPE GP02R (8,2 KΩ)

**Features :** Control unit for safety stop of resistive (value 8,2 KΩ) 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

| <b>Classification</b>                              |  |     |
|--|--|-----|
| 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 <sup>-8</sup>  |     |
| N° of operations/year                              | 50000  |     |
| Usage categories                                   | AC15 – 1,2 A   |     |
| Mission Time (years)                               | 20   |     |
| <b>Electrical data</b>                             |  |     |
| 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           | SI (280 mA)  |     |
| <b>Inputs</b>                                      |  |     |
| Input short-circuit detection                      | SI   |     |
| Input connection interruption detection            | SI   |     |
| Max length of connection cables                    | 100 m  |     |
| Min section of connection cables                   | 0,35 mm <sup>2</sup> (1 mm <sup>2</sup> for cable length >20 m)        |     |
| Max resistance of sensor                           | 100 ohm  |     |
| Voltage applied to inputs                          | 24 VDC   |     |
| Max current (peak value)                           | 2 mA   |     |
| <b>Safety outputs</b>                              |  |     |
| Number of safety outputs                           | 2 NO   |     |
| Rated voltage/Max switchable voltage VAC           | 230 / 300  |     |
| Rated current                                      | 4 / 2  |     |
| Material of standard contacts                      | AC12 230 VAC 1,5° DC13 24VDC 1,2A                                      |     |
| Rated supply voltage                               |  |     |
| Material of standard contacts                      | AgSnO <sub>2</sub>   |     |
| Rated supply voltage                               | V AC50/60hz  | -   |
|  | V DC   | 24  |
| Rated power AC/DC VA (50 Hz)/W                     | -/0,25   |     |
| Delay to energizing (reset) / de-energizing (trip) | < 25 ms  |     |
| Protection against over-current                    | 4 A fast / 2 A delayed   |     |
| Mechanical life                                    | 10 <sup>7</sup>  |     |
| <b>Signal outputs</b>                              |  |     |
| Number of signal outputs                           | 1  |     |
| Max operation voltage                              | VAC  | 125 |
|  | VDC  | 30  |
| Max. current 110VAC                                | 0,2A   |     |
| Max. current 24VDC                                 | 0,5A   |     |
| <b>Environmental characteristics</b>               |  |     |
| 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   |     |
| <b>Dimensions</b>                                  |  |     |
| 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 (8,2 KΩ)



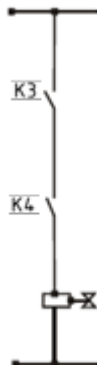
| Connection  |                              |
|---|------------------------------|
| 1-2   | Test Relay (*)               |
| 3-4   | Contact for signalling       |
| 5-8   | Sensor power                 |
| 9   | Positive of power supply (+) |
| 13  | Negative of power supply (-) |
| 10-14   | Reset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

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

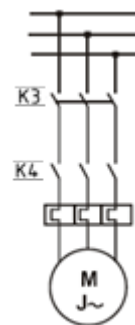
**Direct shut off**



**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     |