

## Datasheet

Art.No. R1.188.3840.0

Device for monitoring of safety-related circuits

Base unit also for elevators EN 81-1/2 and heaters EN50156-1 single-channel or two-channel control, automatic or manual reset with monitoring, cross circuit monitoring, synchronous time monitoring 0,5s, 3 enabling current paths, 1 signalling output, AC/DC 115-230 V, screw-terminals pluggable



|            |               |
|------------|---------------|
| Art.No.    | R1.188.3840.0 |
| EAN        | 4049088143618 |
| Order unit | 1 pieces      |

## Approvals



## Technical data

### General

|  |  |
|--|--|
| Function display   | 3 LED, green   |
| Creepage distances and clearances between the circuits   | EN 60664-1   |
| Protection degree according to DIN EN 60529 (housing)    | IP40   |
| Protection degree according to DIN EN 60529 (terminals)  | IP20   |
| Ambient temperature min.                                 | -25 °C   |
| Ambient temperature max.                                 | 65 °C  |
| Wire ranges screw terminals, fine-stranded / solid       | 1 x 0,14 mm <sup>2</sup> - 2,5 mm <sup>2</sup> / 2 x 0,14 mm <sup>2</sup> - 0,75 mm <sup>2</sup> |
| Wire ranges screw terminals, fine-stranded with ferrules | 1 x 0,25 mm <sup>2</sup> - 2,5 mm <sup>2</sup> / 2 x 0,25 mm <sup>2</sup> - 0,5 mm <sup>2</sup>  |
| Permissible torque min.                                  | 0.5 Nm   |
| Permissible torque max.                                  | 0.6 Nm   |
| Tightening moment  | 0.6 Nm   |
| Wire range cage clamp terminals                          | 2 x 0,25mm <sup>2</sup> - 1,5mm <sup>2</sup>   |
| Weight   | 0.2 kg   |
| Standards  | EN ISO 13849-1;EN 62061;EN 81-1;EN 50156-1   |
| Suited for safety functions                              | Yes  |
| Category according to EN ISO 13849-1                     | 4  |
| Muting possible  | No   |
| Feedback circuit   | Yes  |
| Start contact  | Yes  |
| Performance level acc. to EN ISO 13849-1                 | e  |
| Rail mounting possible                                   | Yes  |

### Connection Data

|                   |     |
|-------------------|-----|
| Detachable clamps | Yes |
|-------------------|-----|

|                             |                  |
|-----------------------------|------------------|
| Type of electric connection | Screw connection |
|-----------------------------|------------------|

### Application

|  |              |
|--|--------------|
| Model  | Basic device |
| Suitable for monitoring of magnetic switches                   | Yes          |
| Suitable for monitoring of proximity switches                  | Yes          |
| Suitable for monitoring of emergency-stop circuits             | Yes          |
| Suitable for monitoring of optoelectronic protection equipment | Yes          |
| Suitable for monitoring of position switches                   | Yes          |

### Output circuit

|  |                                  |
|--|----------------------------------|
| Enabling paths   | 3                                |
| Signaling paths  | 1                                |
| Contact material                                       | Ag-alloy, gold-plated            |
| Max. thermal current I <sub>th</sub> , enabling paths  | 6 A                              |
| Max. thermal current I <sub>th</sub> , signaling paths | 2 A                              |
| Max. total current I <sub>2</sub> of all current path  | 25 A <sup>2</sup>                |
| Application category AC-15 (NO)                        | Ue 230V, Ie 3A                   |
| Application category DC-13 (NO)                        | Ue 24V, Ie 5A                    |
| Short-circuit protection (NO), max. fuse insert        | 6 A class gG fuse, fuse integral |
| Mechanical life  | 107 switching cycles             |

### Control circuit

|  |   |
|--|---|
| Nominal output voltage DC                          | 22.5 V  |
| Input current (safety circuit / reset circuit)     | 25 mA   |
| max. peak current (safety circuit / reset circuit) | 100 mA  |
| Response time t <sub>A1</sub>                      | 250 ms  |
| Response time t <sub>A2</sub>                      | 250 ms  |
| Min. switch-on time                                | 60 ms   |
| Recovery time t <sub>W</sub>                       | 120 ms  |
| Release time t <sub>R</sub>                        | 20 ms   |
| Synchronous time t <sub>S</sub>                    | 0.5 s   |
| Permissible test pulse time t <sub>TP</sub>        | 0.8 ms  |
| max. resistivity, per channel                      | ≤ (5 + (1,176 × U <sub>B</sub> / U <sub>N</sub> - 1) × 100) Ω |
| Type of switch function of the inputs              | Normally open contact   |
| Evaluation inputs                                  | 2-channel   |

### Supply circuit

|   |  |
|---|--|
| Nominal voltage U <sub>N</sub>                        | AC 115-230 V                           |
| Rated consumption AC                                  | 4 VA                                   |
| Rated frequency min.                                  | 50 Hz                                  |
| Rated frequency max.                                  | 60 Hz                                  |
| Operating voltage min.                                | 20.4 V                                 |
| Operating voltage max.                                | 28.8 V                                 |
| Electrical isolation supply circuit - control circuit | yes (at U <sub>N</sub> = AC 115-230 V) |

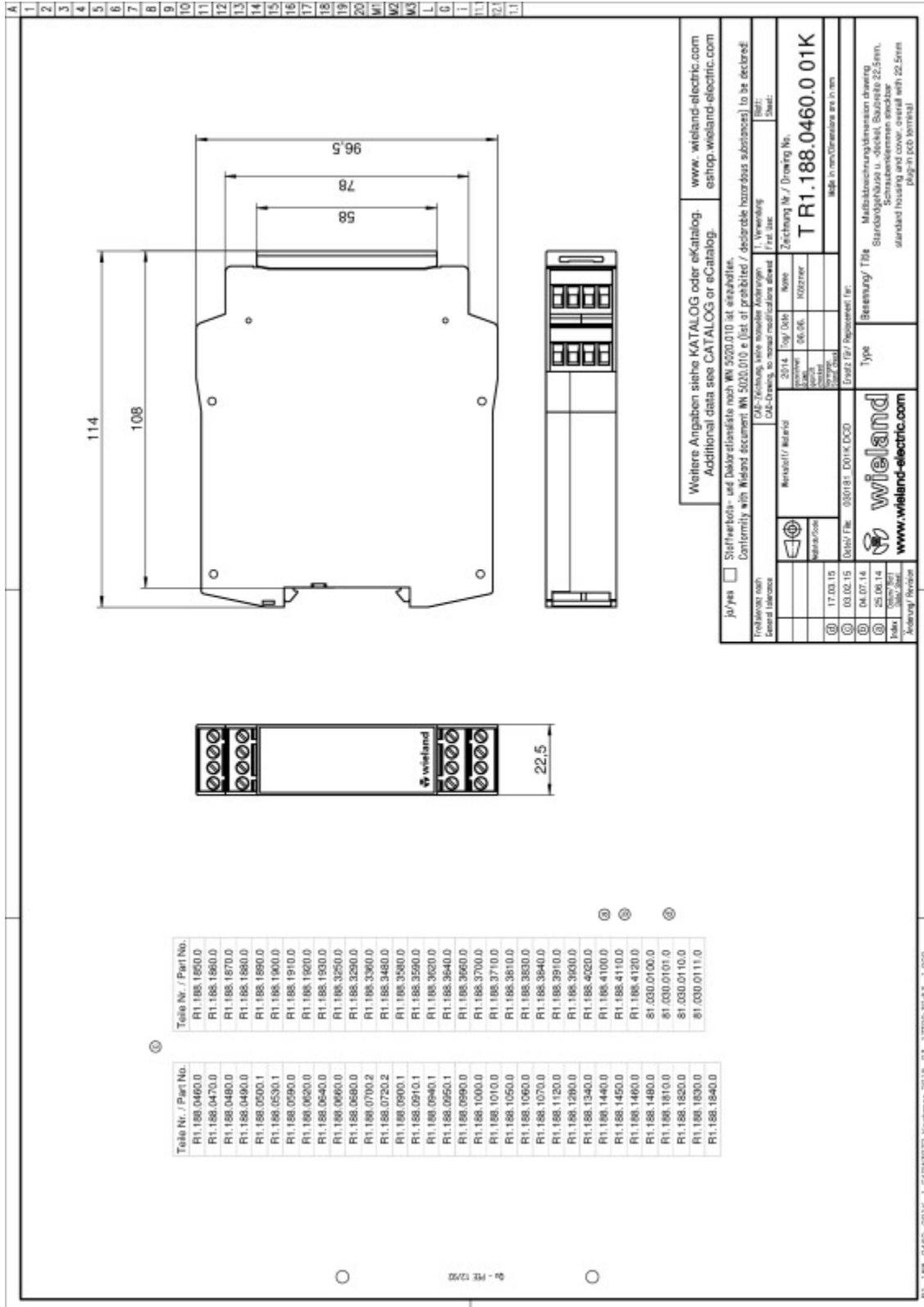
### Dimensions

|        |         |
|--------|---------|
| Depth  | 114 mm  |
| Width  | 22.5 mm |
| Height | 96.5 mm |

### Classification

|            |  |
|------------|--|
| ECLASS 8.1 | 27371819: Device for monitoring of safety-related circuits |
| ETIM 5.0   | EC001449: Device for monitoring of safety-related circuits |

Drawings



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