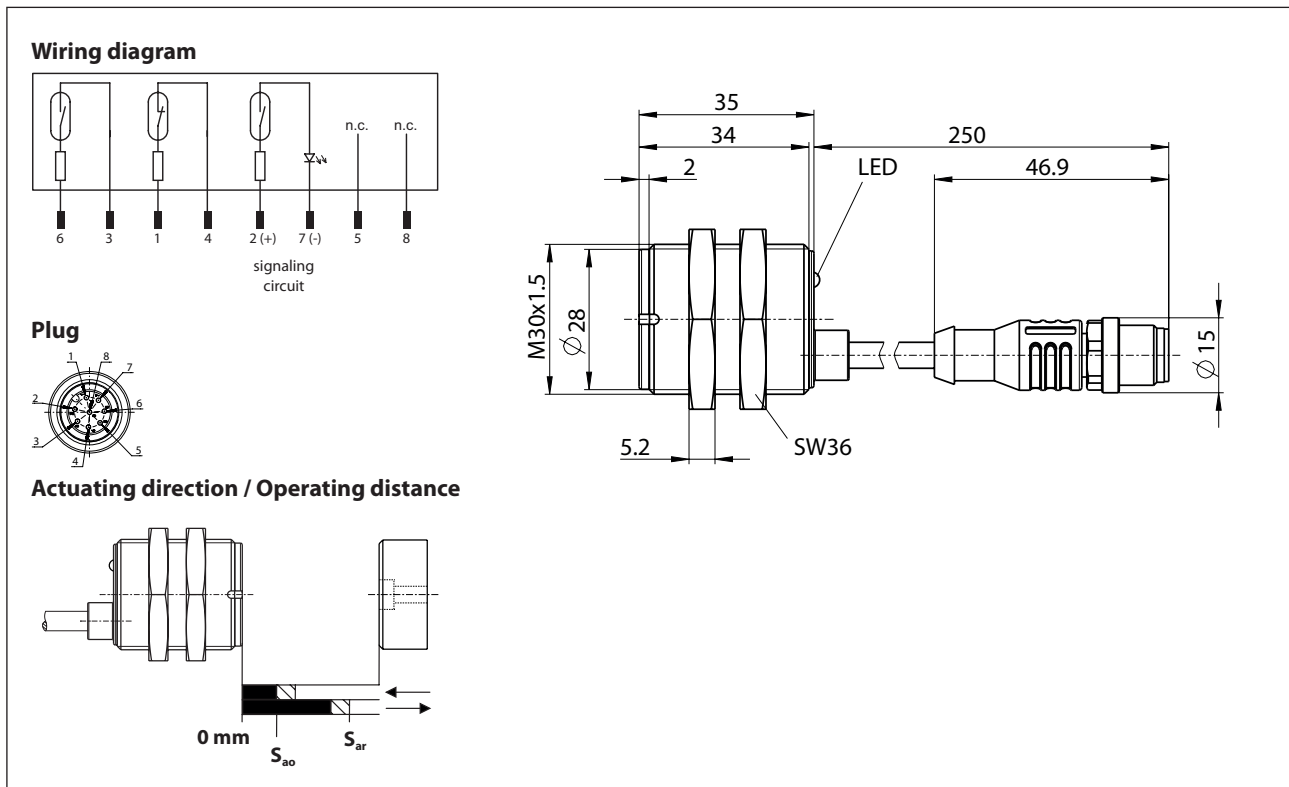


## Coded Magnetic Switch Series MAK-53

Description **MAK-5336-CD-0.25-M12**

Article number **6490653412**



### Technical data

|                                  |  |
|----------------------------------|--|
| Switching function               | 1 x NO, 1 x NC contact (safety circuit), 1 x NO (signaling circuit)                |
| Reference magnet                 | TK-53-CD/2 (6402053088)  |
| Assured operating distance - ON  | $S_{ao} \geq 5 \text{ mm}$   |
| Assured operating distance - OFF | $S_{ar} \leq 14 \text{ mm}$  |
| Repeat accuracy                  | R $\pm 0,1 \text{ mm}$ , under same geometrical conditions at the same temperature |
| Utilization category             | DC-12  |
| Frequency of operating cycles    | f 1 Hz   |

### Electrical data


|                                       |   |
|---------------------------------------|---|
| Max. voltage                          | 30 V DC   |
| Max. switching current                | 0,08 A  |
| Max. switching capacity               | 0,25 W  |
| Internal series resistors             | 27 $\Omega$ , per channel (+ LED series resistor)   |
| Protection class acc. to EN IEC 61558 | III (safety extra-low voltage)  |
| Note                                  | Combinations of switching voltage and switching current must not exceed the maximum switching capacity. |

| Mechanical data     |  |
|---------------------|--|
| Enclosure           | PBT, black (encapsulated reed contact)   |
| For attachment      | 2 x hexagon nut (PA6.6, black)   |
| Indication          | 1 x LED yellow, actuation status   |
| Temperature range   | - 5 °C ... + 70 °C (cable not fixed mounted)<br>- 25 °C ... + 70 °C (cable fixed mounted)    |
| Mechanical life     | 3 x 10 <sup>8</sup> operating cycles   |
| Vibration           | 10 G (10 - 2000 Hz)  |
| Shock               | 100 G (11 ms, ½ Sinewave)  |
| Protection type     | IP 67 acc. to EN 60529<br>(only in fully locked position with it's plugs)                    |
| Degree of pollution | 3 acc. to 60947-1  |
| Termination type    | Cable 8 x 0,25 mm <sup>2</sup> ; PUR - Outer jacket with M12 male connector, 8-pin, A-coding |
| Assembly position   | optional<br>(assembly on ferromagnetic material means reduction of switch distance)          |

| ID for safety engineering |  |
|---------------------------|--|
| B10d                      | 20 x 10 <sup>6</sup> Zyklen (20 % load)<br>0,4 x 10 <sup>6</sup> Zyklen (nominal load) |
| Mission time              | 20 years   |

| Standards |   |
|-----------|---|
|           | DIN EN ISO 13849-1  |
|           | EN 60947-5-3  |
| Note      | The standard EN 60947-5-3 is only complied with by a complete system consisting of coded magnetic switch with associated actuator and a suitable safety safety evaluation system. |

| EU Conformity |  |
|---------------|--|
|               | acc. to directive 2006/42/EC (Safety-of-Machinery-Directive) |

| Approvals |   |
|-----------|---|
|           |  |
|           | UL Listed, Ind. Cont. Eq. / Class 2 Power source                                    |

| Notes   |  |
|---|--|
| Contact protection must be provided for inductive and capacitive loads. |  |