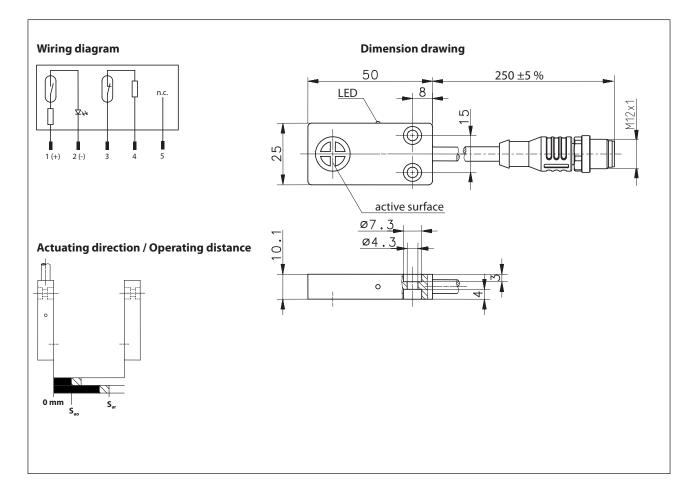


## **Coded Magnetic Switch**

Series MAK-50

Description MAK-5046-CD-0.25-M12-L

Article number 6490650396



| Technical data                   |          |   |
|----------------------------------|----------|---|
| Switching function               |          | 1 x NO, 1 x NC  |
| Reference magnet                 |          | TK-50-CD/2 (6402050086)   |
| Assured operating distance - ON  | $S_{ao}$ | ≥ 6 mm  |
| Assured operating distance - OFF | $S_{ar}$ | ≤ 22 mm   |
| Repeat accuracy                  | R        | $\pm$ 0,1 mm, under same geometrical conditions at the same temperature |
| Utilization category             |          | DC-12   |
| Frequency of operating cycles    | f        | 1 Hz  |

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## **Technical Data**



| Electrical data                   |                |   |
|-----------------------------------|----------------|---|
| Max. voltage                      |                | 30 V DC   |
| Max. switching current            |                | 0,02 A  |
| Max. switching capacity           |                | 0,25 W  |
| Voltage drop                      | U <sub>d</sub> | ≤ 3 V   |
| Internal series resistor          |                | 27 $\Omega$ , per channel   |
| Protection class acc. to EN IEC 6 | 51558          | 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   |
| Mounting          | 2 holes Ø 4,3 (for M4 screws)   |
| Indication        | 1 x LED yellow, actuation status  |
| Temperature range | - 5 ℃ + 70 ℃ (cable not fixed mounted)<br>- 25 ℃ + 70 ℃ (cable fixed mounted)                   |
| Mechanical life   | 3 x 10 <sup>8</sup> operating cycles  |
| Vibration         | 10 G (10 - 1200 Hz)   |
| Shock             | 100 G (11 ms, ½ Sinewave)   |
| Protection type   | IP 67 acc. to EN 60529 (only in fully locked position with it's plugs)                          |
| Pollution degree  | 3 acc. to EN 60947-1  |
| Termination type  | Cable 5 x 0,34 mm <sup>2</sup> , PUR-Outer jacket with plug connector M12 male, 5-pole, A coded |
| Assembly position | optional<br>(assembly on ferromagnetic material means reduction of switch distance)             |

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

| Standards |   |
|-----------|---|
|           | DIN EN ISO 13849-1  |
|           | EN 60947-5-3  |
| Note      | The EN 60947-5-3 standard is only fulfilled by a complete system that consists of a coded magnetic switch with related actuator and suitable safety controller. |

## **EU Conformity**

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

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

## Notes

Contact protection must be provided for inductive and capacitive loads.

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The technical datasheet corresponds to the technical state as of 2025-03-17 and will not be removed in case of changes.