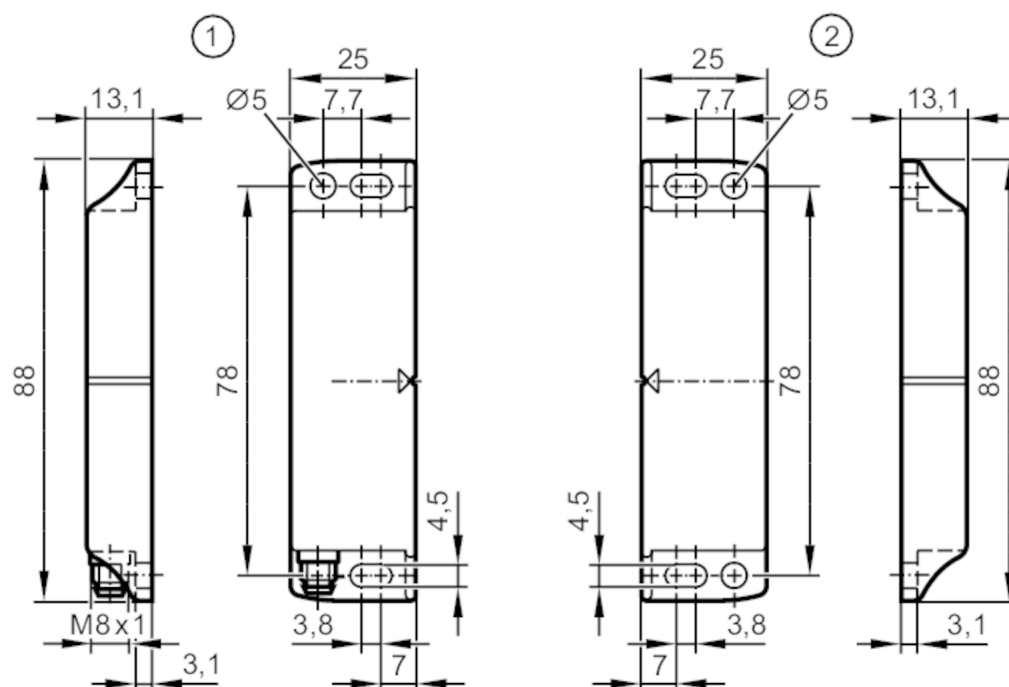


# MN502S



## Magnetically coded sensor

MN44008-AKOG/AS



- 1 sensor
- 2 coded target



### Product characteristics

|                    |                                     |
|--------------------|-------------------------------------|
| Output function    | 2 x normally open; (potential-free) |
| Sensing range [mm] | 8; (with defined actuator)          |
| Housing            | rectangular                         |
| Dimensions [mm]    | 88 x 13.1 x 25                      |

### Application

|                   |                                 |
|-------------------|---------------------------------|
| Design            | coded target                    |
| Type of operation | permanent operation             |
| Application       | For safety-related applications |

### Electrical data

|                              |           |
|------------------------------|-----------|
| Operating voltage [V]        | 24 DC     |
| Rated insulation voltage [V] | 60        |
| Protection class             | III       |
| Reverse polarity protection  | no        |
| Internal resistance (Ri) [Ω] | 10; (1 W) |

### Outputs

|                                                      |                                     |
|------------------------------------------------------|-------------------------------------|
| Output function                                      | 2 x normally open; (potential-free) |
| Permanent current rating of switching output DC [mA] | 50                                  |
| Switching frequency DC [Hz]                          | 150                                 |
| Output data                                          | Interface type A                    |
| Short-circuit proof                                  | no                                  |

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|                                         |               |                                                                                                                                     |
|-----------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Max. capacitive load CL_max             | [nF]          | 20                                                                                                                                  |
| <b>Monitoring range</b>                 |               |                                                                                                                                     |
| Sensing range                           | [mm]          | 8; (with defined actuator)                                                                                                          |
| Safe switching-off distance s(ar)       | [mm]          | 20                                                                                                                                  |
| <b>Reaction times</b>                   |               |                                                                                                                                     |
| Response time to safety request         | [ms]          | 10                                                                                                                                  |
| Max. fall time                          | [ms]          | 0.1                                                                                                                                 |
| Max. make time incl. bounce             | [ms]          | 0.6                                                                                                                                 |
| <b>Operating conditions</b>             |               |                                                                                                                                     |
| Applications                            |               | Class C to EN 60654-1 weatherproof application                                                                                      |
| Ambient temperature                     | [°C]          | -25...80                                                                                                                            |
| Note on ambient temperature             |               | operational life ≤ 87600 h                                                                                                          |
| Ambient temperature                     | [°C]          | 10...40                                                                                                                             |
| Note on ambient temperature             |               | operational life ≤ 175200 h                                                                                                         |
| Max. relative air humidity              | [%]           | briefly: 5...95 %; permanent: 5...70 %                                                                                              |
| Air pressure                            | [kPa]         | 80...106                                                                                                                            |
| Max. height above sea level             | [m]           | 2000                                                                                                                                |
| Salt spray                              |               | no                                                                                                                                  |
| Protection                              |               | IP 67; IP 69K                                                                                                                       |
| <b>Tests / approvals</b>                |               |                                                                                                                                     |
| EMC                                     | IEC 60947-5-1 |                                                                                                                                     |
| Shock resistance                        | EN 60068-2-27 | 30 g (11 ms)                                                                                                                        |
| Vibration resistance                    | IEC 60068-2-6 | 10 g (10...55 Hz)                                                                                                                   |
| <b>Safety classification</b>            |               |                                                                                                                                     |
| Mission time TM                         | [h]           | ≤ 175200                                                                                                                            |
| Mission time TM (additional indication) |               | 20 years                                                                                                                            |
| B10D                                    |               | 20.000.000; (without load; at max. load DC 12, 24 V, 50 mA: 400.000)                                                                |
| <b>Mechanical data</b>                  |               |                                                                                                                                     |
| Weight                                  | [g]           | 159                                                                                                                                 |
| Housing                                 |               | rectangular                                                                                                                         |
| Mounting                                |               | non-flush mountable                                                                                                                 |
| Dimensions                              | [mm]          | 88 x 13.1 x 25                                                                                                                      |
| Material                                |               | housing: PA; fixing plate: stainless steel (1.4301 / 304)                                                                           |
| Tightening torque                       | [Nm]          | 0.8...2                                                                                                                             |
| <b>Accessories</b>                      |               |                                                                                                                                     |
| Items supplied                          |               | coded target                                                                                                                        |
| <b>Remarks</b>                          |               |                                                                                                                                     |
| Remarks                                 |               | In connection with a G150xS / AC4x2S type evaluation unit, it is possible to reach up to PL e (ISO 13849-1) or SIL cl 3 (IEC 62061) |
| Pack quantity                           |               | 1 pcs.                                                                                                                              |

# MN502S



## Magnetically coded sensor

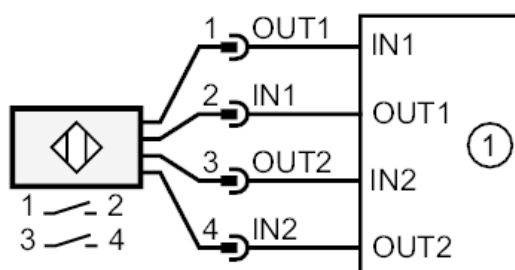
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### Electrical connection - plug

Connector: 1 x M8; coding: A



### Connection



1: Safety-related logic unit