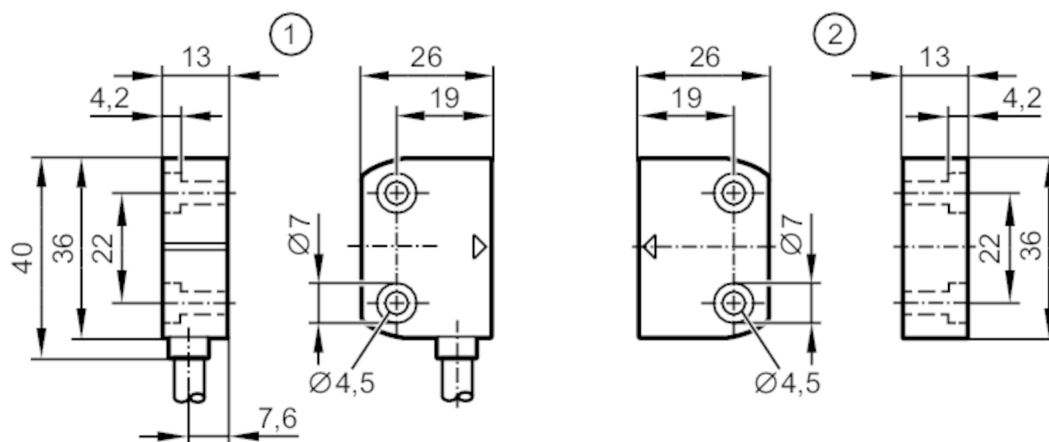


# MN204S



## Magnetically coded sensor

MN16005-AKOG/-H



- 1 sensor  
2 coded target



### Product characteristics

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Output function    | 2 x normally open, 1 x normally closed; (potential-free) |
| Sensing range [mm] | 5; (with defined actuator)                               |
| Housing            | rectangular                                              |
| Dimensions [mm]    | 36 x 13 x 26                                             |

### Application

|                   |                     |
|-------------------|---------------------|
| Design            | coded target        |
| Type of operation | permanent operation |

### 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, 1 x normally closed; (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                                                       |
| Max. capacitive load CL_max [nF]                     | 20                                                       |

### Monitoring range

|                                        |                            |
|----------------------------------------|----------------------------|
| Sensing range [mm]                     | 5; (with defined actuator) |
| Safe switching-off distance s(ar) [mm] | 15                         |

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| Reaction times                          |                                                                                                                                     |                                        |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Response time to safety request         | [ms]                                                                                                                                | 10                                     |
| Max. fall time                          | [ms]                                                                                                                                | 0.1                                    |
| Max. make time incl. bounce             | [ms]                                                                                                                                | 0.6                                    |
| Operating conditions                    |                                                                                                                                     |                                        |
| 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; (protected cable laying)                                                                                             |                                        |
| Tests / approvals                       |                                                                                                                                     |                                        |
| 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)                      |
| Safety classification                   |                                                                                                                                     |                                        |
| 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)                                                                |                                        |
| Mechanical data                         |                                                                                                                                     |                                        |
| Weight                                  | [g]                                                                                                                                 | 217                                    |
| Housing                                 | rectangular                                                                                                                         |                                        |
| Mounting                                | non-flush mountable                                                                                                                 |                                        |
| Dimensions                              | [mm]                                                                                                                                | 36 x 13 x 26                           |
| Material                                | PA                                                                                                                                  |                                        |
| Tightening torque                       | [Nm]                                                                                                                                | 0.8...2                                |
| Accessories                             |                                                                                                                                     |                                        |
| Items supplied                          | coded target                                                                                                                        |                                        |
|                                         | cover caps: 4                                                                                                                       |                                        |
| Remarks                                 |                                                                                                                                     |                                        |
| 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.                                                                                                                              |                                        |

# MN204S



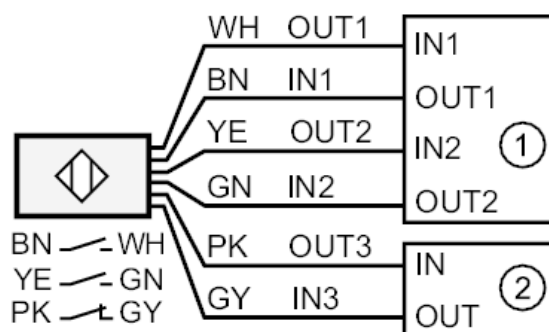
## Magnetically coded sensor

MN16005-AKOG/-H

### Electrical connection

Cable: 2 m, PVC, Ø 5 mm; 6 x 0.25 mm<sup>2</sup>

### Connection



- 1: Safety-related logic unit  
2: Programmable Logic Controller (PLC)  
Core colors :  
BN = brown  
GN = green  
GY = grey  
PK = pink  
WH = white  
YE = yellow