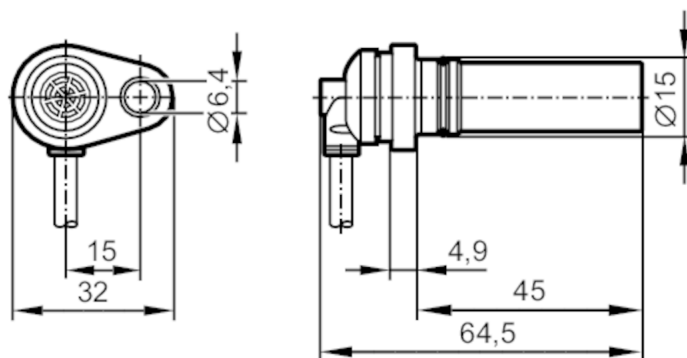


# MX5051

## Speed sensor

MXD41,7-BPKG/H/ZH



### Product characteristics

|                    |                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------|
| Electrical design  | PNP                                                                                                                |
| Output function    | normally open                                                                                                      |
| Sensing range [mm] | 1.7; (Using toothed wheels with a different modulus has an influence on the sensing range and the phase position.) |
| Dimensions [mm]    | Ø 15 / L = 64.5                                                                                                    |

### Application

|                     |             |
|---------------------|-------------|
| Operating principle | Hall sensor |
|---------------------|-------------|

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 40       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | PNP           |
| Output function                                      | normally open |
| Max. voltage drop switching output DC [V]            | 1             |
| Max. leakage current [mA]                            | 0.1           |
| Permanent current rating of switching output DC [mA] | 50            |
| Short-time current rating of switching output [mA]   | 50            |
| Switching frequency DC [Hz]                          | 1...15000     |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Detection zone

|                               |                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Sensing range [mm]            | 1.7; (Using toothed wheels with a different modulus has an influence on the sensing range and the phase position.) |
| Real sensing range $S_r$ [mm] | $1.7 \pm 10 \%$                                                                                                    |
| Operating distance [mm]       | 1.38                                                                                                               |

### Operating conditions

|                          |          |
|--------------------------|----------|
| Ambient temperature [°C] | -32...85 |
|--------------------------|----------|

# MX5051



## Speed sensor

MXD41,7-BPKG/H/ZH

|            |                      |
|------------|----------------------|
| Protection | IP 65; IP 68; IP 69K |
|------------|----------------------|

### Tests / approvals

|                         |                   |                                                                                 |
|-------------------------|-------------------|---------------------------------------------------------------------------------|
| EMC                     | EN 61000-4-2      | 4 kV CD / 8 kV AD                                                               |
|                         | EN 61000-4-3      | 10 V/m                                                                          |
|                         | EN 61000-4-4      | 2 kV                                                                            |
|                         | EN 61000-4-6      | 10 V/m                                                                          |
|                         | EN 61000-4-8      | 30 A/m                                                                          |
|                         | EN 55011          | 0 class B                                                                       |
| Shock resistance        | DIN EN 60068-2-27 | 30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Fast temperature change | EN 60068-2-14 Na  | TA = -10 °C; TB = 70°C; t1 = 60 min; t2 = < 10 s; 20 cycles                     |
| Salt spray test         | EN 60068-2-52 Kb  | severity level 5 (4 test cycles)                                                |
| MTTF [years]            | 3718              |                                                                                 |

### Mechanical data

|                           |                        |
|---------------------------|------------------------|
| Weight [g]                | 86.5                   |
| Dimensions [mm]           | Ø 15 / L = 64.5        |
| Materials                 | brass; PA; O-ring: FKM |
| Tightening torque [Nm]    | 7                      |
| Toothed wheel module [mm] | 1.25                   |
| Installation length [mm]  | 45                     |

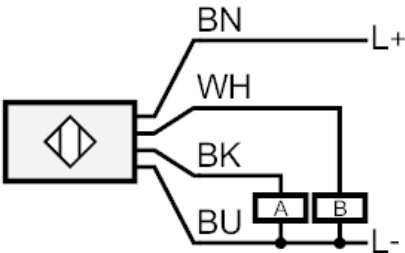
### Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection

Cable: 2 m, PUR

### Connection



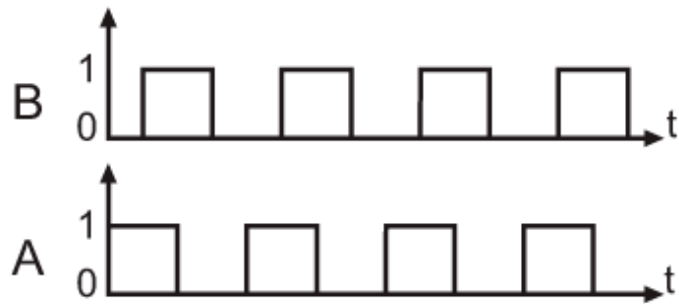


## Speed sensor

MXD41,7-BPKG/H/ZH

### Diagrams and graphs

switching signals



phase shift  $90^\circ \pm 20^\circ$

pulse/pause ratio 50 %  $\pm$  10 %

Using toothed wheels with a different modulus has an influence on the sensing range and the phase position.