

## IBR40175

### INDUCTIVE SENSORS • NORM SWITCHING DISTANCE

Inductive proximity switches are contact-free sensors. They detect all conductive metals, regardless of whether they move or not. The achievable sensing range of the devices depends on the object material and its dimensions. The vibration-resistant sensors can be approached laterally or frontally. Inductive proximity switches are used for presence detection (e.g. goods carriers), positioning (e.g. dampers), counting (e.g. nuts /bolts), speed detection (e.g. for cog wheels), on conveyor systems (e.g. hose feedings) or distance measurements (e.g. press-in checking) of metallic objects.



#### MECHANICAL DATA

|  |                        |
|--|------------------------|
| Active area material of sensor           | PA 6.1 GF15            |
| Ambient temperature (MAX)                | 70 °C                  |
| Ambient temperature (MIN)                | -25 °C                 |
| Degree of protection (IP)                | IP67                   |
| Housing design                           | Cylinder plain         |
| Housing material                         | Stainless steel 1.4305 |
| Mechanical mounting condition for sensor | Flush                  |
| Pressure-proof                           | No                     |
| Sensor diameter                          | 4 mm                   |
| Sensor length                            | 27 mm                  |

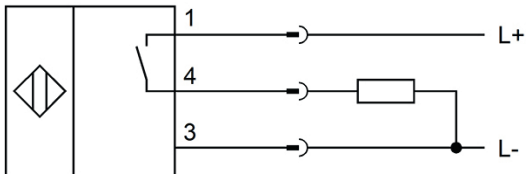
#### ELECTRICAL DATA

|                                   |                    |
|-----------------------------------|--------------------|
| Cascadable                        | No                 |
| Correction factor (aluminum)      | 0.5                |
| Correction factor (brass)         | 0.55               |
| Correction factor (copper)        | 0.45               |
| Correction factor (St37)          | 1                  |
| Correction factor (stainl. steel) | 0.8                |
| Hysteresis                        | 10 %               |
| Max. output current               | 200 mA             |
| No-load current                   | 10 mA              |
| Norm measuring plate              | 4x4x1              |
| Relative repeat accuracy          | 1.25 %             |
| Reverse polarity protection       | Yes                |
| Short-circuit-proof               | Yes                |
| Suitable for safety functions     | No                 |
| Supply voltage (MAX)              | 30 V               |
| Supply voltage (MIN)              | 10 V               |
| Switching distance                | 0.8 mm             |
| Switching frequency               | 5000 Hz            |
| Type of electrical connection     | Cable connector M8 |

## ELECTRICAL DATA

|  |                       |
|--|-----------------------|
| Type of switching function                     | Normally open contact |
| Type of switching output                       | PNP                   |
| Voltage drop                                   | 2 V                   |
| Voltage type                                   | DC                    |
| With LED display                               | Yes                   |
| With monitoring function of downstream devices | No                    |

## CONNECTION



**Colors:** 1 = BN (brown), 3 = BU (blue), 4 = BK (black)

**Functions:** 1 = L+, 3 = L-, 4 = PNP NO

## DIMENSIONAL DRAWING

### INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

### DISPOSAL



## SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.