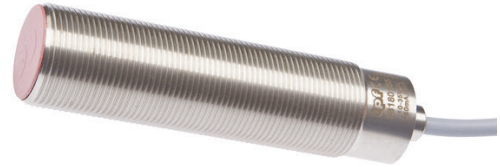


**IB180155**

**INDUCTIVE SENSORS • ENLARGED AMBIENT TEMPERATURE**

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.



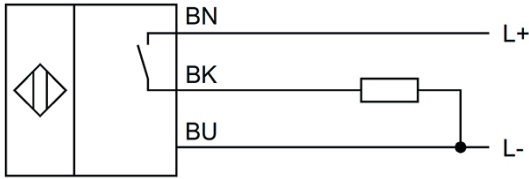
**TECHNICAL DATA**

|                                                  |                        |
|--------------------------------------------------|------------------------|
| 2x increased switching distance                  | No                     |
| 3x increased switching distance                  | No                     |
| 4x increased switching distance                  | No                     |
| Active area material of sensor                   | Vectra®                |
| Ambient temperature                              | 0 °C ... 130 °C        |
| Ambient temperatures < -25°C                     | No                     |
| Areas inquiry                                    | No                     |
| Atmospheric-change resistant (temperature cycle) | No                     |
| Cable length                                     | 2 m                    |
| Cascadable                                       | No                     |
| Connection to amplifier                          | No                     |
| Correction factor (aluminum)                     | 0.3                    |
| Correction factor (brass)                        | 0.4                    |
| Correction factor (copper)                       | 0.2                    |
| Correction factor (stainless steel)              | 0.7                    |
| Correction factor (steel)                        | 1                      |
| Degree of protection (IP)                        | IP50                   |
| Devices for hose mounting                        | No                     |
| Distance measuring sensors                       | No                     |
| End position sensing, hydraulic cylinder         | No                     |
| Feeding technology                               | No                     |
| Harsh environmental conditions                   | No                     |
| High-pressure-proof sensors                      | No                     |
| Housing design                                   | Cylinder, screw-thread |
| Housing material                                 | Stainless steel 1.4305 |
| Housing material                                 | Metal                  |
| Hygienic and wet area                            | No                     |
| Hysteresis                                       | 15 %                   |
| Increased ambient temperatures > 80°C            | Yes                    |
| Increased switching distance                     | No                     |

**TECHNICAL DATA**

|                                                |                       |
|------------------------------------------------|-----------------------|
| Material independent sensors (factor 1)        | No                    |
| Material of cable sheath                       | Silicone              |
| Max. output current                            | 150 mA                |
| Mechanical mounting condition for sensor       | Concise               |
| Metallic sensor surface                        | No                    |
| No-load current                                | 15 mA                 |
| Norm measuring plate                           | 18x18x1               |
| Number of wires                                | 3                     |
| Oil and cooling lubricants                     | No                    |
| Pressure-proof                                 | No                    |
| Rated control supply voltage $U_s$ at DC       | 10 V ... 35 V         |
| Readiness delay                                | 5 ms                  |
| Relative repeat accuracy                       | 3 %                   |
| Residual ripple                                | 10 %                  |
| Response time                                  | 1.2 ms                |
| Reverse polarity protection                    | Yes                   |
| Ring-shaped sensors                            | No                    |
| Sensor length                                  | 70 mm                 |
| Short-circuit-proof                            | Yes                   |
| Suitable for safety functions                  | No                    |
| Supply voltage                                 | 10 V ... 35 V         |
| Switching distance                             | 5 mm                  |
| Switching frequency                            | 400 Hz                |
| Teflon housing                                 | No                    |
| Thread length                                  | 60 mm                 |
| Thread pitch                                   | 1 mm                  |
| Thread size, metric                            | 18                    |
| Type of electrical connection                  | Cable                 |
| Type of switching function                     | Normally open contact |
| Type of switching output                       | PNP                   |
| Voltage drop                                   | 2 V                   |
| Voltage type                                   | DC                    |
| Welding area                                   | No                    |
| Welding-proof sensors                          | No                    |
| Wire cross section                             | 0.14 mm <sup>2</sup>  |
| With LED display                               | Yes                   |
| With monitoring function of downstream devices | No                    |

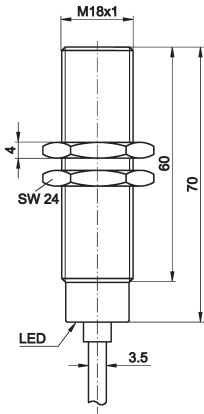
## CONNECTION



**Colors:** BN (brown), BU (blue), BK (black)

**Functions:** BN = L+, BU = L-, BK = 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.