

### IA120100

#### **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**

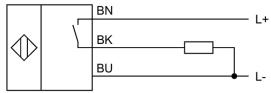
| Active area material of sensor           | PBT                    |
|--|------------------------|
| Ambient temperature                      | -25 °C 70 °C           |
| Cable length                             | 2 m                    |
| Degree of protection (IP)                | IP67                   |
| Housing coating                          | Nickel-plated          |
| Housing design                           | Cylinder, screw-thread |
| Housing material                         | Brass                  |
| Material of cable sheath                 | PVC                    |
| Mechanical mounting condition for sensor | Flush                  |
| Number of wires                          | 3                      |
| Pressure-proof                           | No                     |
| Sensor length                            | 50 mm                  |
| Thread length                            | 38 mm                  |
| Thread pitch                             | 1 mm                   |
| Thread size, metric                      | 12                     |
| ELECTRICAL DATA                          |                        |
| Cascadable                               | No                     |
| Correction factor (aluminum)             | 0.3                    |
| Correction factor (brass)                | 0.4                    |
| Correction factor (copper)               | 0.2                    |
| Correction factor (St37)                 | 1                      |
| Correction factor (stainl. steel)        | 0.7                    |
| Hysteresis                               | 15 %                   |
| IO-Link compatible                       | No                     |
| Max. output current                      | 200 mA                 |
| No-load current                          | 15 mA                  |
| Norm measuring plate                     | 12x12x1                |
| Relative repeat accuracy                 | 10 %                   |
| Reverse polarity protection              | Yes                    |
| Short-circuit-proof                      | Yes                    |
|  |                        |

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## **ELECTRICAL DATA**

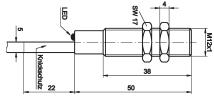
| Suitable for safety functions                  | No                    |
|--|-----------------------|
| Supply voltage                                 | 10 V 30 V             |
| Switching distance                             | 2 mm                  |
| Switching frequency                            | 800 Hz                |
| Type of electrical connection                  | Cable                 |
| 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:** 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!

## **IPF** ELECTRONIC

ipf electronic gmbh • Kalver Straße 25 - 27 • 58515 Lüdenscheid - Germany | Tel +49 2351 9365-0 • Fax +49 2351 9365-19 | info@ipf-electronic.com • www.ipf-electronic.com