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

| Devices for hose mounting |  | NO |  |
| :---: | :---: | :---: | :---: |
| Feeding technology |  | NO |  |
| Harsh environmental conditions |  | NO |  |
| Hygienic and wet area |  | NO |  |
| Metallic sensor surface |  | NO |  |
| Oil and cooling lubricants |  | NO |  |
| Ring-shaped sensors |  | NO |  |
| Welding-proof sensors |  | NO |  |
| Active area material of sensor |  | PBT |  |
| Ambient temperature ( $\mathrm{min} / \mathrm{max}$ ) |  | $-25^{\circ} \mathrm{C} / 70^{\circ} \mathrm{C}$ |  |
| Ambient temperatures <-25 ${ }^{\circ} \mathrm{C}$ |  | NO |  |
| Atmospheric-change resistant (temperature cycle) |  | NO |  |
| Cable length |  | 2 m |  |
| Degree of protection (IP) |  | IP67 |  |
| High-pressure-proof sensors |  | NO |  |
| Housing coating |  | Nickel-plated |  |
| Housing design |  | Cylinder, screw-thread |  |
| Housing material |  | Brass |  |
| Housing material |  | Metal |  |
| Increased ambient temperatures $>80^{\circ} \mathrm{C}$ |  | NO |  |
| Material independent sensors (factor 1) |  | NO |  |
| Material of cable sheath |  | PVC |  |
| Mechanical mounting condition for sensor |  | Concise |  |
| Number of wires |  | 3 |  |
| Pressure-proof |  | NO |  |
| Sensor diameter |  | 12 mm |  |
| Sensor length |  | 35 mm |  |
| Teflon housing |  | NO |  |
| Thread length |  | 35 mm |  |
| Thread pitch |  | 1 mm |  |
| Thread size, metric |  | 12 |  |
| ipf electronic gmbh Kaver Straße 25-27 <br> 58515 <br> 5 Lüdenscheid - Germany | $\begin{aligned} & \text { Tel + 49 } 23519355-0 \\ & \text { Fax +49 } 23519365-19 \end{aligned}$ | $19 \quad$www.ipfelectroni.com <br> info@ipfelectronic.com | Subject to alteration Version: May 2017 |

## IB12E075

special devices

| Wire cross section | $0.14 \mathrm{~mm}^{2}$ |
| :---: | :---: |
| 2 x increased switching distance | NO |
| $3 x$ increased switching distance | NO |
| 4 x increased switching distance | NO |
| 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 |
| Distance measuring sensors | NO |
| Increased switching distance | NO |
| Max. output current | 200 mA |
| Max. output current at safe output | 200 mA |
| No-load current | 15 mA |
| Norm measuring plate | $12 \times 12 \times 1$ |
| Number of semiconductor outputs with signaling function | 1 |
| Operating voltage (min/max) | $10 \mathrm{~V} / 30 \mathrm{~V}$ |
| Rated control supply voltage Us at DC (min/max) | $10 \mathrm{~V} / 30 \mathrm{~V}$ |
| Reverse polarity protection | YES |
| Short-circuit-proof | YES |
| Suitable for safety functions | NO |
| Supply voltage (min/max) | $10 \mathrm{~V} / 30 \mathrm{~V}$ |
| Switching behavior of the output | Static |
| Switching distance | 4 mm |
| Switching frequency | 800 Hz |
| Type of actuation | Metallic Target |
| Type of electrical connection | Cable |
| Type of switching function | Normally open contact |
| Type of switching output | PNP |
| Voltage type | DC |
| With LED display | YES |
| With LED display (functional reserve) | NO |
| With monitoring function of downstream devices | NO |
| Areas inquiry | NO |
| End position sensing, hydraulic cylinder | NO |
| Welding area | NO |

CONNECTION


Colors: BN (brown), BU (blue), BK (black)
Functions: $B N=L+, B U=L-, B K=P N P N O$

DIMENSIONAL DRAWING


