

## IB120170

### Inductive sensors • Norm switching distance

sensor inductive, M12x1 60long, Flush, Sn: 3, 10-30V DC, PNP NO, Connector M8 3pin, IP67, Brass Nickel-plated

including 2x Nut



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.

#### Electrical features

|                                   |                            |
|-----------------------------------|----------------------------|
| Display                           | LED display                |
| Type of switching function        | Normally open contact (NO) |
| Type of electrical connection     | Connector M8               |
| Type of switching output          | PNP                        |
| Rated switching current           | 200mA                      |
| Relative hysteresis               | 15%                        |
| Correction factor (aluminum)      | 0.3                        |
| Correction factor (copper)        | 0.2                        |
| Correction factor (brass)         | 0.4                        |
| Correction factor (St37)          | 1                          |
| Correction factor (stainl. steel) | 0.7                        |
| Short-circuit protection          | Yes                        |
| No-load current                   | 15mA                       |
| Number of pins                    | 3                          |
| Relative repeat accuracy          | 10%                        |
| Switching distance                | 3mm                        |
| Switching frequency               | 800Hz                      |
| Voltage drop                      | 2V                         |
| Reverse polarity protection       | Yes                        |
| Operating voltage (DC)            | 10 - 30V                   |

### Mechanical features

|                                          |                        |
|------------------------------------------|------------------------|
| Alignment of cable entry                 | axial                  |
| Design                                   | Cylinder, screw-thread |
| Thread length                            | 38.5mm                 |
| Thread pitch                             | 1mm                    |
| Cable infeed                             | axial                  |
| Length                                   | 60mm                   |
| Mechanical mounting condition for sensor | flush                  |
| Surface                                  | nickel-plated          |
| Degree of protection (IP)                | IP67                   |
| Active area material of sensor           | Plastic (PBT)          |
| Housing material                         | Brass                  |
| Thread dimension                         | M12                    |
| Ambient temperature                      | -25 - 70°C             |

### Other features

|                           |                                          |
|---------------------------|------------------------------------------|
| Reference medium / object | Standard measuring plate FE360 12x12x1mm |
| Ambient temperature       | -25 - 70°C                               |

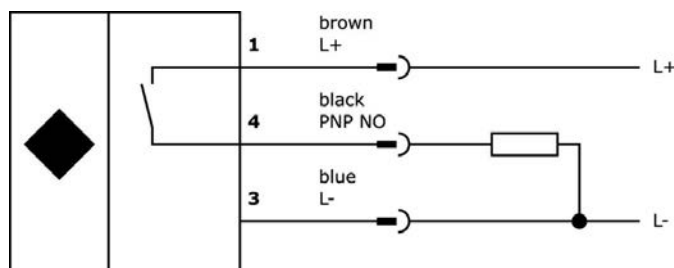
### Classification

|        |                                     |
|--------|-------------------------------------|
| ETIM 8 | EC002714 Inductive proximity switch |
|--------|-------------------------------------|

### More

|                       |                       |
|-----------------------|-----------------------|
| IPF Product Group     | 200 inductive sensors |
| packaging dimensions  | 120 x 100 x 17 mm     |
| gross weight          | 30 g                  |
| Customs tariff number | 85365019              |
| WEEE number           | 40951076              |
| OzDS-compliant        | Yes                   |
| POP-compliant         | Yes                   |
| Reach-compliant       | Yes                   |
| RoHS-compliant        | Yes                   |

### Connection



### 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.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).

**Dimensional drawing**