

## IB050176

### Inductive sensors • Increased switching distance

sensor inductive, M5x0.5 38long, Flush, Sn: 1.5, 10-30V DC, PNP NO, IO-Link,  
Connector M8 3pin, IP67, V4A

including 2x Nut, 2x Toothed washer



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               | 10%                        |
| Correction factor (aluminum)      | 0.4                        |
| Correction factor (copper)        | 0.4                        |
| Correction factor (brass)         | 0.5                        |
| Correction factor (St37)          | 1                          |
| Correction factor (stainl. steel) | 0.75                       |
| Short-circuit protection          | Yes                        |
| No-load current                   | 10mA                       |
| Number of pins                    | 3                          |
| Relative repeat accuracy          | 2%                         |
| Switching distance                | 1,5mm                      |
| Switching frequency               | 3000Hz                     |
| Voltage drop                      | 2V                         |
| Reverse polarity protection       | Yes                        |
| Operating voltage (DC)            | 10 - 30V                   |

## Mechanical features

|                                          |                        |
|------------------------------------------|------------------------|
| Alignment of cable entry                 | axial                  |
| Design                                   | Cylinder, screw-thread |
| Diameter                                 | 5mm                    |
| Thread length                            | 23mm                   |
| Thread pitch                             | 0.5mm                  |
| Cable infeed                             | axial                  |
| Length                                   | 38mm                   |
| Maximum tightening torque                | 1.5Nm                  |
| Mechanical mounting condition for sensor | flush                  |
| Degree of protection (IP)                | IP67                   |
| Active area material of sensor           | Plastic (PA6.6)        |
| Housing material                         | Stainless steel 1.4404 |
| Thread dimension                         | M5                     |
| Ambient temperature                      | -25 - 70°C             |

## Other features

|                           |                                        |
|---------------------------|----------------------------------------|
| IO-Link version           | V1.0.1                                 |
| Reference medium / object | Standard measuring plate FE360 5x5x1mm |
| Ambient temperature       | -25 - 70°C                             |

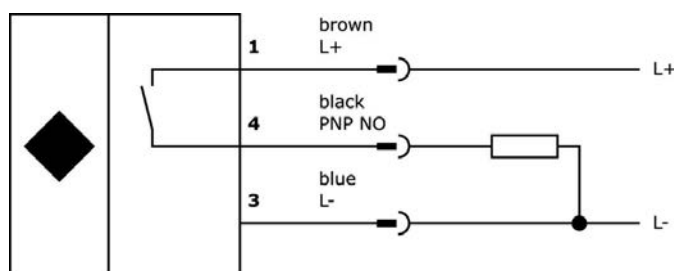
## Classification

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

## More

|                       |                                           |
|-----------------------|-------------------------------------------|
| IPF Product Group     | 201 inductive sensors (plus / super plus) |
| packaging dimensions  | 215 x 180 x 17 mm                         |
| gross weight          | 15 g                                      |
| Customs tariff number | 85365019                                  |
| WEEE number           | 40951076                                  |
| Reach-compliant       | Yes                                       |
| RoHS-compliant        | Yes                                       |
| MTTF (25°C)           | 3110 year(s)                              |
| MTTF (40°C)           | 1165 year(s)                              |
| MTTF (70°C)           | 185 year(s)                               |

## 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).

Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: [www.ipf-electronic.com](http://www.ipf-electronic.com)

### Dimensional drawing

