

## IN1801T1

### Inductive sensors • Increased ambient temperature

sensor inductive, M18x1 77long, Non-flush, Sn: 8, 10-35V DC, 0-180°C, PNP NO, Cable 5m Polytetrafluorethylene (PTFE), IP50, Stainless steel 1.4305

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

|                                   |                            |
|-----------------------------------|----------------------------|
| Response/decay time               | 1.2ms                      |
| Type of switching function        | Normally open contact (NO) |
| Type of electrical connection     | Cable                      |
| Type of switching output          | PNP                        |
| Rated switching current           | 150mA                      |
| Readiness delay                   | 5ms                        |
| 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                       |
| Relative repeat accuracy          | 3%                         |
| Residual ripple                   | 10%                        |
| Switching distance                | 8mm                        |
| Switching frequency               | 400Hz                      |
| Voltage drop                      | 2V                         |
| Reverse polarity protection       | Yes                        |
| Operating voltage (DC)            | 10 - 35V                   |

## Mechanical features

|                                          |                        |
|------------------------------------------|------------------------|
| Conductor cross-section                  | 0.22mm <sup>2</sup>    |
| Alignment of cable entry                 | axial                  |
| Design                                   | Cylinder, screw-thread |
| Thread length                            | 60mm                   |
| Thread pitch                             | 1mm                    |
| Cable length                             | 5m                     |
| Cable infeed                             | axial                  |
| Length                                   | 77mm                   |
| Mechanical mounting condition for sensor | non-flush              |
| Degree of protection (IP)                | IP50                   |
| Active area material of sensor           | Plastic (Vectra®)      |
| Housing material                         | Stainless steel 1.4305 |
| Material of cable sheath                 | Plastic (PTFE)         |
| Thread dimension                         | M18                    |
| Ambient temperature                      | 0 - 180°C              |

## Other features

|                           |                                          |
|---------------------------|------------------------------------------|
| Reference medium / object | Standard measuring plate FE360 18x18x1mm |
| Ambient temperature       | 0 - 180°C                                |

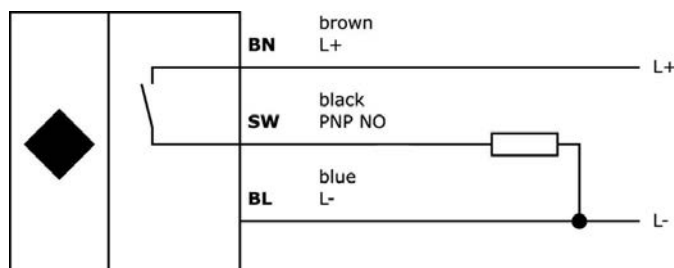
## Classification

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

## More

|                       |                                          |
|-----------------------|------------------------------------------|
| IPF Product Group     | 202 inductive sensors (high temperature) |
| packaging dimensions  | 149 x 124 x 28 mm                        |
| gross weight          | 190 g                                    |
| Customs tariff number | 85365019                                 |
| WEEE number           | 40951076                                 |
| 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**