

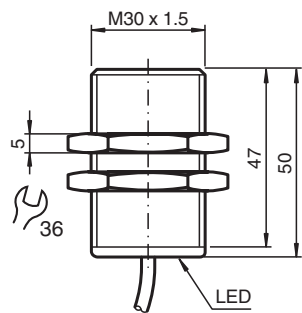
# Inductive sensor

## NBB15-30GM50-E2-3G-3D

- Increased operating distance
- 15 mm flush
- ATEX-approval for zone 2 and zone 22



### Dimensions



### Technical Data

| General specifications      |       |                                        |
|-----------------------------|-------|----------------------------------------|
| Switching function          |       | Normally open (NO)                     |
| Output type                 |       | PNP                                    |
| Rated operating distance    | $s_n$ | 15 mm                                  |
| Installation                |       | flush                                  |
| Output polarity             |       | DC                                     |
| Assured operating distance  | $s_a$ | 0 ... 12.15 mm                         |
| Reduction factor $r_{Al}$   |       | 0.3                                    |
| Reduction factor $r_{Cu}$   |       | 0.3                                    |
| Reduction factor $r_{304}$  |       | 0.75                                   |
| Output type                 |       | 3-wire                                 |
| Nominal ratings             |       |                                        |
| Operating voltage           | $U_B$ | 10 ... 30 V DC                         |
| Switching frequency         | $f$   | 0 ... 200 Hz                           |
| Reverse polarity protection |       | reverse polarity protected             |
| Short-circuit protection    |       | pulsing                                |
| Voltage drop                | $U_d$ | $\leq 3$ V                             |
| Operating current           | $I_L$ | 0 ... 200 mA                           |
| Off-state current           | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C |
| No-load supply current      | $I_0$ | $\leq 15$ mA                           |
| Switching state indicator   |       | all direction LED, yellow              |

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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PEPPERL+FUCHS

## Technical Data

### Functional safety related parameters

|                                |        |
|--------------------------------|--------|
| MTTF <sub>d</sub>              | 1058 a |
| Mission Time (T <sub>M</sub> ) | 20 a   |
| Diagnostic Coverage (DC)       | 0 %    |

### Compliance with standards and directives

|                     |                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------|
| Standard conformity |                                                                                             |
| Standards           | EN 60947-5-2:2007<br>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>IEC 60947-5-2 AMD 1:2012 |

### Approvals and certificates

|              |                                                              |
|--------------|--------------------------------------------------------------|
| UL approval  | cULus Listed, General Purpose                                |
| CSA approval | cCSAus Listed, General Purpose                               |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

### Ambient conditions

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--------------------------------|

### Mechanical specifications

|                      |                       |
|----------------------|-----------------------|
| Connection type      | cablc PVC , 2 m       |
| Core cross-section   | 0.34 mm <sup>2</sup>  |
| Housing material     | brass, nickel-plated  |
| Sensing face         | PBT                   |
| Degree of protection | IP67                  |
| Cable                |                       |
| Bending radius       | > 10 x cable diameter |

### Equipment protection level Dc (tc)

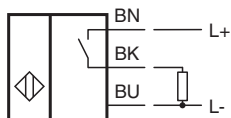
#### Special conditions

|                                                              |                                                                                                                                                    |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum permissible ambient temperature<br>T <sub>Umax</sub> | dependant of the load current I <sub>L</sub> and the max. operating voltage U <sub>Bmax</sub><br>Information can be taken from the following list. |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

### General information

|                           |                         |
|---------------------------|-------------------------|
| Use in the hazardous area | see instruction manuals |
|---------------------------|-------------------------|

## Connection



## Accessories

|                                                                                     |               |                                       |
|-------------------------------------------------------------------------------------|---------------|---------------------------------------|
|  | <b>BF 30</b>  | Mounting flange, 30 mm                |
|  | <b>EXG-30</b> | Quick mounting bracket with dead stop |