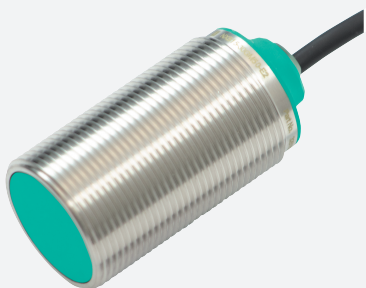


# Inductive sensor

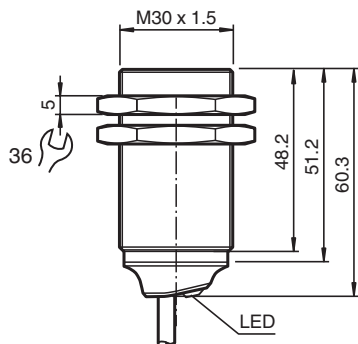
## NBB10-30GM50-A2



- 10 mm flush
- Extended temperature range  
-40 ... +85 °C
- Extended operating voltage range
- Flexible use with versatile mounting opportunities



### Dimensions



### Technical Data

#### General specifications

|                              |       |   |
|------------------------------|-------|---|
| Switching function           |       | complementary   |
| Output type                  |       | PNP   |
| Rated operating distance     | $s_n$ | 10 mm   |
| Installation                 |       | flush   |
| Output polarity              |       | DC  |
| Assured operating distance   | $s_a$ | 0 ... 8.1 mm  |
| Actuating element            |       | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>30 mm x 30 mm x 1 mm |
| Reduction factor $r_{Al}$    |       | 0.5   |
| Reduction factor $r_{Cu}$    |       | 0.42  |
| Reduction factor $r_{304}$   |       | 0.74  |
| Reduction factor $r_{Brass}$ |       | 0.52  |
| Output type                  |       | 4-wire  |
| <b>Nominal ratings</b>       |       |   |
| Operating voltage            | $U_B$ | 5 ... 36 V  |
| Switching frequency          | $f$   | 0 ... 1100 Hz   |

Release date: 2023-01-25 Date of issue: 2023-01-25 Filename: 326161-0167\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

## Technical Data

|   |           |   |
|---|-----------|---|
| Hysteresis                                      | H         | typ. 5 %  |
| Reverse polarity protection                     |           | reverse polarity protected  |
| Short-circuit protection                        |           | pulsing   |
| Voltage drop                                    | $U_d$     | $\leq 1$ V  |
| Operating current                               | $I_L$     | 0 ... 200 mA  |
| Off-state current                               | $I_r$     | max. 20 $\mu$ A   |
| No-load supply current                          | $I_o$     | $\leq 15$ mA  |
| Time delay before availability                  | $t_v$     | $\leq 10$ ms  |
| Switching state indicator                       |           | LED, yellow   |
| <b>Functional safety related parameters</b>     |           |   |
| MTTF <sub>d</sub>                               |           | 1248 a  |
| Mission Time (T <sub>M</sub> )                  |           | 20 a  |
| Diagnostic Coverage (DC)                        |           | 0 %   |
| <b>Conformity</b>                               |           |   |
| PWIS conformity                                 |           | VDMA 24364-C1/T100°C-W  |
| <b>Compliance with standards and directives</b> |           |   |
| 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 |
| <b>Approvals and certificates</b>               |           |   |
| Protection class                                |           | II  |
| Rated insulation voltage                        | $U_i$     | 36 V  |
| Rated impulse withstand voltage                 | $U_{imp}$ | 500 V   |
| UL approval                                     |           | cULus Listed, General Purpose, Class 2 Power Source   |
| CCC approval                                    |           | CCC approval / marking not required for products rated $\leq 36$ V                          |
| <b>Ambient conditions</b>                       |           |   |
| Ambient temperature                             |           | -40 ... 85 °C (-40 ... 185 °F)  |
| Storage temperature                             |           | -40 ... 85 °C (-40 ... 185 °F)  |
| <b>Mechanical specifications</b>                |           |   |
| Connection type                                 |           | cable   |
| Housing material                                |           | brass , white bronze coated   |
| Sensing face                                    |           | PBT , green   |
| Degree of protection                            |           | IP68  |
| Cable   |           |   |
| Wire end ferrules                               |           | yes   |
| Cable diameter                                  |           | 4.3 mm $\pm$ 0.15 mm  |
| Bending radius                                  |           | > 10 x cable diameter   |
| Material  |           | PVC   |
| Color   |           | black   |
| Number of cores                                 |           | 4   |
| Core cross section                              |           | 0.34 mm <sup>2</sup>  |
| Length  | L         | 2 m   |
| Mass  |           | 198 g   |
| Tightening torque                               |           | 0 ... 30 Nm   |
| <b>General information</b>                      |           |   |
| Scope of delivery                               |           | 2 self locking nuts in scope of delivery  |

Release date: 2023-01-25 Date of issue: 2023-01-25 Filename: 326161-0167\_eng.pdf

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

 Pepperl+Fuchs Group  
www.pepperl-fuchs.com

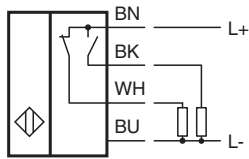
 USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

 Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com




 Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

## Connection



## Accessories

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



# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product manufacturers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)