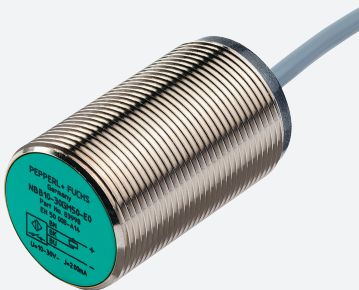


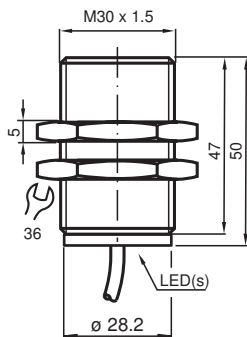
# Inductive sensor

## NBB10-30GM50-WS-10M

■ Basic series



### Dimensions



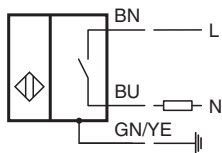
### Technical Data

| General specifications     |       |                    |
|----------------------------|-------|--------------------|
| Switching function         |       | Normally open (NO) |
| Output type                |       | Two-wire           |
| Rated operating distance   | $s_n$ | 10 mm              |
| Installation               |       | flush              |
| Output polarity            |       | AC                 |
| Assured operating distance | $s_a$ | 0 ... 8.1 mm       |
| Actual operating distance  | $s_r$ | 9 ... 11 mm        |
| Reduction factor $r_{Al}$  |       | 0.33               |
| Reduction factor $r_{Cu}$  |       | 0.28               |
| Reduction factor $r_{304}$ |       | 0.81               |
| Nominal ratings            |       |                    |
| Operating voltage          | $U_B$ | 20 ... 253 V       |
| Switching frequency        | $f$   | 0 ... 20 Hz        |

## Technical Data

|                                                 |       |                                                                                                                                                                                                                                                       |
|-------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hysteresis                                      | H     | typ. 5 %                                                                                                                                                                                                                                              |
| Voltage drop                                    | $U_d$ | < 5 V ( $I_L > 50$ mA); < 8 V ( $I_L < 50$ mA)                                                                                                                                                                                                        |
| Momentary current<br>(20 ms, 0.1 Hz)            |       | 0 ... 1600 mA                                                                                                                                                                                                                                         |
| Operating current                               | $I_L$ | 5 ... 200 mA                                                                                                                                                                                                                                          |
| Off-state current                               | $I_r$ | 0 ... 1.7 mA                                                                                                                                                                                                                                          |
| Operating voltage indicator                     |       | LED, green                                                                                                                                                                                                                                            |
| Switching state indicator                       |       | LED, yellow                                                                                                                                                                                                                                           |
| <b>Compliance with standards and directives</b> |       |                                                                                                                                                                                                                                                       |
| Standard conformity                             |       |                                                                                                                                                                                                                                                       |
| Standards                                       |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                                                                                                                                                                                                               |
| <b>Approvals and certificates</b>               |       |                                                                                                                                                                                                                                                       |
| UL approval                                     |       | cULus Listed, General Purpose                                                                                                                                                                                                                         |
| CSA approval                                    |       | cCSAus Listed, General Purpose                                                                                                                                                                                                                        |
| CCC approval                                    |       | Certified by China Compulsory Certification (CCC)                                                                                                                                                                                                     |
| <b>Ambient conditions</b>                       |       |                                                                                                                                                                                                                                                       |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                                                                                                                                                                                                        |
| <b>Mechanical specifications</b>                |       |                                                                                                                                                                                                                                                       |
| Connection type                                 |       | cablE PVC , 10 m                                                                                                                                                                                                                                      |
| Cable version                                   |       | PA                                                                                                                                                                                                                                                    |
| Core cross-section                              |       | 0.75 mm <sup>2</sup>                                                                                                                                                                                                                                  |
| Housing material                                |       | brass, nickel-plated                                                                                                                                                                                                                                  |
| Sensing face                                    |       | PBT                                                                                                                                                                                                                                                   |
| Degree of protection                            |       | IP67                                                                                                                                                                                                                                                  |
| Note                                            |       | 1) In the temperature range below 0 °C, permissible operating voltage $U_b$ 80...253 V<br>Safety fuse ≤ 0.3 A (quick-blow) according to IEC 60127-2 Sheet 1<br>Recommendation: after a short circuit, check that the device is functioning correctly. |

## Connection



## Accessories

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