

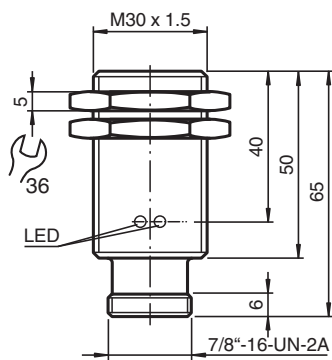
# Inductive sensor

## NBB15-30GM50-WS-V93

- Basic series
- 15 mm flush
- 2-wire AC



### Dimensions



### Technical Data

| General specifications               |                |                                                                |
|--------------------------------------|----------------|----------------------------------------------------------------|
| Switching function                   |                | Normally open (NO)                                             |
| Output type                          |                | Two-wire                                                       |
| Rated operating distance             | s <sub>n</sub> | 15 mm                                                          |
| Installation                         |                | quasi flush                                                    |
| Output polarity                      |                | AC                                                             |
| Assured operating distance           | s <sub>a</sub> | 0 ... 12.15 mm                                                 |
| Actual operating distance            | s <sub>r</sub> | 13.5 ... 16.5 mm                                               |
| Reduction factor r <sub>Al</sub>     |                | 0.33                                                           |
| Reduction factor r <sub>Cu</sub>     |                | 0.28                                                           |
| Reduction factor r <sub>304</sub>    |                | 0.81                                                           |
| Output type                          |                | 2-wire                                                         |
| Nominal ratings                      |                |                                                                |
| Operating voltage                    | U <sub>B</sub> | 20 ... 253 V                                                   |
| Switching frequency                  | f              | 0 ... 20 Hz                                                    |
| Hysteresis                           | H              | typ. 5 %                                                       |
| Reverse polarity protection          |                | reverse polarity tolerant                                      |
| Voltage drop                         | U <sub>d</sub> | < 5 V (I <sub>L</sub> > 50 mA); < 8 V (I <sub>L</sub> < 50 mA) |
| Momentary current<br>(20 ms, 0.1 Hz) |                | 0 ... 1600 mA                                                  |
| Operating current                    | I <sub>L</sub> | 5 ... 200 mA                                                   |
| Off-state current                    | I <sub>r</sub> | 0 ... 1.7 mA                                                   |

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

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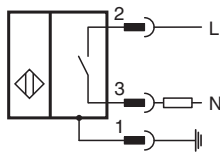
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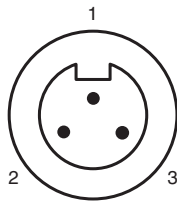
Technical Data

|                                          |                                                                                                                                                                                                                                                                |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating voltage indicator              | LED, green                                                                                                                                                                                                                                                     |
| Switching state indicator                | LED, yellow                                                                                                                                                                                                                                                    |
| Compliance with standards and directives |                                                                                                                                                                                                                                                                |
| Standard conformity                      |                                                                                                                                                                                                                                                                |
| Standards                                | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                                                                                                                                                                                                                        |
| Approvals and certificates               |                                                                                                                                                                                                                                                                |
| UL approval                              | cULus Listed, General Purpose                                                                                                                                                                                                                                  |
| CSA approval                             | cCSAus Listed, General Purpose                                                                                                                                                                                                                                 |
| CCC approval                             | Certified by China Compulsory Certification (CCC)                                                                                                                                                                                                              |
| Ambient conditions                       |                                                                                                                                                                                                                                                                |
| Ambient temperature                      | -25 ... 70 °C (-13 ... 158 °F)                                                                                                                                                                                                                                 |
| Mechanical specifications                |                                                                                                                                                                                                                                                                |
| Connection type                          | Connector 7/8 inch-16 UN , 3-pin                                                                                                                                                                                                                               |
| 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 <sub>b</sub> 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



Connection Assignment

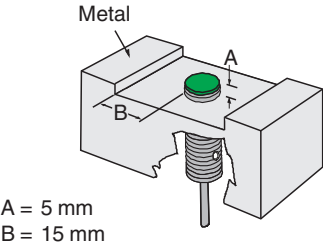


|             |    |         |
|-------------|----|---------|
| Wire colors |    |         |
| 1           | GN | (green) |
| 2           | BK | (black) |
| 3           | WH | (white) |

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Mounting

Installation conditions



Accessories

|                                                                                     |                         |                                          |
|-------------------------------------------------------------------------------------|-------------------------|------------------------------------------|
|  | <b>BF 30</b>            | Mounting flange, 30 mm                   |
|  | <b>EXG-30</b>           | Quick mounting bracket with dead stop    |
|  | <b>V93-G-YE2M-STOOW</b> | Female cordset, 7/8", 3-pin, STOOW cable |

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