



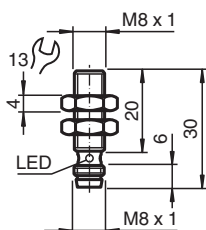
## Inductive sensor

### NBB2-8GH20-E2-V3

- Increased operating distance
- Short version
- Materials used compliant with FDA
- Housing with stainless steel (V4A; 1.4435)



## Dimensions



## Technical Data

### General specifications

|                              |                    |               |
|------------------------------|--------------------|---------------|
| Switching function           | Normally open (NO) |               |
| Output type                  |                    | PNP           |
| Rated operating distance     | $s_n$              | 2 mm          |
| Installation                 |                    | flush         |
| Output polarity              |                    | DC            |
| Assured operating distance   | $s_a$              | 0 ... 1.62 mm |
| Reduction factor $r_{Al}$    |                    | 0.25          |
| Reduction factor $r_{Cu}$    |                    | 0.2           |
| Reduction factor $r_{304}$   |                    | 0.63          |
| Reduction factor $r_{Brass}$ |                    | 0.31          |
| Output type                  |                    | 3-wire        |

### Nominal ratings

|                             |       |                                       |
|-----------------------------|-------|---------------------------------------|
| Operating voltage           | $U_B$ | 10 ... 30 V                           |
| Switching frequency         | $f$   | 0 ... 1500 Hz                         |
| Hysteresis                  | $H$   | typ. 5 %                              |
| Reverse polarity protection |       | reverse polarity protected            |
| Short-circuit protection    |       | pulsing                               |
| Voltage drop                | $U_d$ | $\leq 3$ V                            |
| Operating current           | $I_L$ | 0 ... 100 mA                          |
| Off-state current           | $I_r$ | 0 ... 0.5 mA typ. 10 $\mu$ A at 25 °C |
| No-load supply current      | $I_0$ | $\leq 15$ mA                          |
| Switching state indicator   |       | Multihole-LED, yellow                 |

### Functional safety related parameters

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

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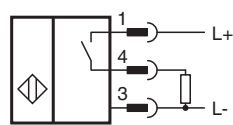
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 **PEPPERL+FUCHS**

Technical Data

|                                          |                                                              |
|------------------------------------------|--------------------------------------------------------------|
| MTTF <sub>d</sub>                        | 2750 a                                                       |
| Mission Time (T <sub>M</sub> )           | 20 a                                                         |
| Diagnostic Coverage (DC)                 | 0 %                                                          |
| Compliance with standards and directives |                                                              |
| Standard conformity                      |                                                              |
| Standards                                | EN IEC 60947-5-2                                             |
| Approvals and certificates               |                                                              |
| UL approval                              | cULus 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                          | M8 x 1 connector, 3-pin                                      |
| Housing material                         | Stainless steel 1.4435 / AISI 316L                           |
| Sensing face                             | LCP, (conforms with FDA)                                     |
| Degree of protection                     | IP67                                                         |
| Mass                                     | 10 g                                                         |
| Dimensions                               |                                                              |
| Length                                   | 30 mm                                                        |
| Diameter                                 | 8 mm                                                         |

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

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