

# Inductive sensor

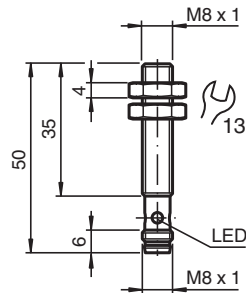
## NBB2-8GS35-E1-V3



- 2 mm flush
- Increased operating distance
- Stainless steel version
- Extended temperature range  
-40 ... +85 °C



### Dimensions



### Technical Data

| General specifications       |       |   |
|------------------------------|-------|---|
| Switching function           |       | Normally closed (NC)  |
| Output type                  |       | NPN   |
| Rated operating distance     | $s_n$ | 2 mm  |
| Installation                 |       | flush   |
| Output polarity              |       | DC  |
| Assured operating distance   | $s_a$ | 0 ... 1.62 mm   |
| Actuating element            |       | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>8 mm x 8 mm x 1 mm |
| Reduction factor $r_{Al}$    |       | 0.2   |
| Reduction factor $r_{Cu}$    |       | 0.1   |
| Reduction factor $r_{304}$   |       | 0.55  |
| Reduction factor $r_{Brass}$ |       | 0.25  |
| Output type                  |       | 3-wire  |
| Nominal ratings              |       |   |
| Operating voltage            | $U_B$ | 5 ... 30 V  |
| Switching frequency          | $f$   | 0 ... 6000 Hz   |

Release date: 2022-05-25 Date of issue: 2022-05-25 Filename: 304615-0080\_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

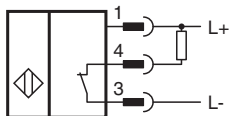
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PF** PEPPERL+FUCHS

## Technical Data

|   |       |   |
|---|-------|---|
| Hysteresis                                      | H     | typ. 5%   |
| Reverse polarity protection                     |       | reverse polarity protected  |
| Short-circuit protection                        |       | pulsing   |
| Voltage drop                                    | $U_d$ | $\leq 1.5$ V  |
| Operating current                               | $I_L$ | 0 ... 100 mA  |
| Off-state current                               | $I_r$ | 0 ... 0.2 mA  |
| No-load supply current                          | $I_o$ | $\leq 10$ mA  |
| Time delay before availability                  | $t_v$ | $\leq 100$ ms   |
| Switching state indicator                       |       | Multihole-LED, yellow   |
| <b>Functional safety related parameters</b>     |       |   |
| MTTF <sub>d</sub>                               |       | 960 a   |
| Mission Time (T <sub>M</sub> )                  |       | 20 a  |
| Diagnostic Coverage (DC)                        |       | 0 %   |
| <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>               |       |   |
| 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                                 |       | Connector plug M8 x 1 , 3-pin   |
| Housing material                                |       | Stainless steel 1.4305 / AISI 303   |
| Sensing face                                    |       | LCP   |
| Degree of protection                            |       | IP67  |
| <b>General information</b>                      |       |   |
| Scope of delivery                               |       | 2 hex nuts included   |

## Connection



## Connection Assignment





## Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

## Accessories

|   |                     |  |
|---|---------------------|--|
|  | <b>BF 8</b>         | Mounting flange, 8 mm  |
|  | <b>V3-WM-2M-PUR</b> | Female cordset single-ended M8 angled A-coded, 3-pin, PUR cable grey |

Release date: 2022-05-25 Date of issue: 2022-05-25 Filename: 304615-0080\_eng.pdf

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