



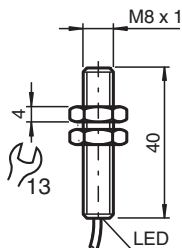
# Inductive sensor

## NRB2-8GH40-E2

- 2 mm flush
- Reduction factor = 1
- Magnetic field resistant
- Stainless steel housing
- Front face FDA conform



### Dimensions



### Technical Data

| General specifications             |                |                    |
|------------------------------------|----------------|--------------------|
| Switching function                 |                | Normally open (NO) |
| Output type                        |                | PNP                |
| Rated operating distance           | s <sub>n</sub> | 2 mm               |
| Installation                       |                | flush              |
| Output polarity                    |                | DC                 |
| Assured operating distance         | s <sub>a</sub> | 0 ... 1.62 mm      |
| Reduction factor r <sub>Al</sub>   |                | 1                  |
| Reduction factor r <sub>Cu</sub>   |                | 1                  |
| Reduction factor r <sub>304</sub>  |                | 1                  |
| Reduction factor r <sub>St37</sub> |                | 1                  |
| Output type                        |                | 3-wire             |
| Nominal ratings                    |                |                    |
| Operating voltage                  | U <sub>B</sub> | 10 ... 30 V DC     |
| Switching frequency                | f              | 0 ... 4000 Hz      |
| Hysteresis                         | H              | typ. 5 %           |

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

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Reverse polarity protection                     |       | reverse polarity protected                                                                  |
| Short-circuit protection                        |       | pulsing                                                                                     |
| Voltage drop                                    | $U_d$ | $\leq 2 \text{ V}$                                                                          |
| Operating current                               | $I_L$ | 0 ... 200 mA                                                                                |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C                                                |
| No-load supply current                          | $I_0$ | $\leq 15 \text{ mA}$                                                                        |
| Constant magnetic field                         | B     | 200 mT                                                                                      |
| Alternating magnetic field                      | B     | 200 mT                                                                                      |
| Switching state indicator                       |       | LED, yellow                                                                                 |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| MTTF <sub>d</sub>                               |       | 1010.5 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 $\leq 36 \text{ V}$                  |
| <b>Ambient conditions</b>                       |       |                                                                                             |
| Ambient temperature                             |       | -25 ... 85 °C (-13 ... 185 °F)                                                              |
| Storage temperature                             |       | -40 ... 100 °C (-40 ... 212 °F)                                                             |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | cablе PVC , 2 m                                                                             |
| Core cross-section                              |       | 0.14 mm <sup>2</sup>                                                                        |
| Housing material                                |       | stainless steel 1.4404 / AISI 316L                                                          |
| Sensing face                                    |       | LCP, (conforms with FDA)                                                                    |
| Degree of protection                            |       | IP67                                                                                        |

## Connection

