

# Inductive sensor

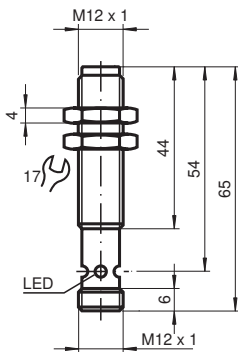
## NMB2-12GM65-E3-FE-V1



- Stainless steel sensing face
- Sensing range 2 mm
- 3-wire DC
- Ferrous targets



### Dimensions



### Technical Data

#### General specifications

|                              |       |                      |
|------------------------------|-------|----------------------|
| Switching function           |       | Normally closed (NC) |
| Output type                  |       | PNP                  |
| Rated operating distance     | $s_n$ | 2 mm                 |
| Installation                 |       | flush                |
| Output polarity              |       | DC                   |
| Assured operating distance   | $s_a$ | 0 ... 1.62 mm        |
| Actuating element            |       | Ferrous targets      |
| Reduction factor $r_{Al}$    |       | 0                    |
| Reduction factor $r_{Cu}$    |       | 0                    |
| Reduction factor $r_{304}$   |       | 0.25                 |
| Reduction factor $r_{316Ti}$ |       | 0.1                  |
| Reduction factor $r_{St37}$  |       | 1                    |
| Reduction factor $r_{Brass}$ |       | 0                    |

Release date: 2022-05-23 Date of issue: 2022-05-23 Filename: 908433\_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

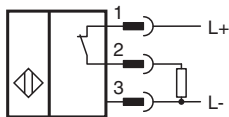
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

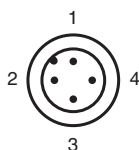
## Technical Data

|   |       |  |
|---|-------|--|
| Output type                                     |       | 3-wire   |
| <b>Nominal ratings</b>                          |       |  |
| Operating voltage                               | $U_B$ | 10 ... 30 V  |
| Switching frequency                             | $f$   | 0 ... 100 Hz   |
| Hysteresis                                      | $H$   | 3 ... 15 typ. 5 %  |
| Reverse polarity protection                     |       | reverse polarity protected   |
| Short-circuit protection                        |       | pulsing  |
| Voltage drop                                    | $U_d$ | $\leq 2$ V DC  |
| Operating current                               | $I_L$ | $\leq 200$ mA  |
| Current consumption                             |       | $< 14$ mA  |
| Off-state current                               | $I_r$ | $\leq 10$ $\mu$ A  |
| <b>Functional safety related parameters</b>     |       |  |
| MTTF <sub>d</sub>                               |       | 990 a  |
| Mission Time (T <sub>M</sub> )                  |       | 20 a   |
| Diagnostic Coverage (DC)                        |       | 0 %  |
| <b>Indicators/operating means</b>               |       |  |
| Operation indicator                             |       | 4-way dual LED<br>Green: power<br>Yellow: output                         |
| <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                                    |       | CCC approval / marking not required for products rated $\leq 36$ V       |
| <b>Ambient conditions</b>                       |       |  |
| Ambient temperature                             |       | -40 ... 70 °C (-40 ... 158 °F)   |
| <b>Mechanical specifications</b>                |       |  |
| Connection type                                 |       | V1 connector (M12 x 1), 4-pin  |
| Housing material                                |       | Stainless steel 1.4305 / AISI 303  |
| Sensing face                                    |       | Stainless steel 1.4305 / AISI 303  |
| Degree of protection                            |       | IP67 / IP68 / IP69K - cordset dependent according to cable specification |

## Connection



## Connection Assignment






## Connection Assignment

Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

## Accessories

|   |                    |   |
|---|--------------------|---|
|  | <b>V1-W-2M-PUR</b> | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey   |
|  | <b>V1-G-2M-PUR</b> | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |
|  | <b>AB-12</b>       | Mounting aid  |

Release date: 2022-05-23 Date of issue: 2022-05-23 Filename: 908433\_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