

# Inductive sensor

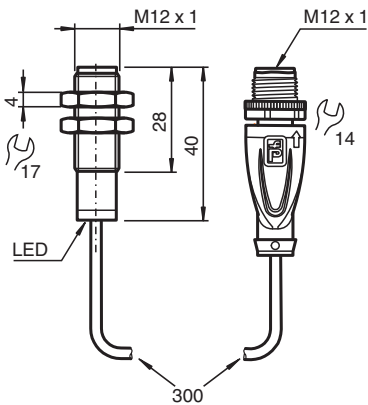
## NMB2-12GM40-Z3-C-FE-300MM-V1



- Stainless steel sensing face
- Sensing range 2 mm
- 2-wire DC
- Weld field immune
- Weld slag resistant coating
- Ferrous targets



### Dimensions



### Technical Data

#### General specifications

|                              |       |                    |
|------------------------------|-------|--------------------|
| Switching function           |       | Normally open (NO) |
| Output type                  |       | Two-wire           |
| 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 $r_{304}$   |       | 0.6 - 0.8          |
| Reduction factor $r_{Si37}$  |       | 1                  |
| Reduction factor $r_{Brass}$ |       | 0                  |
| Output type                  |       | 2-wire             |

#### Nominal ratings

|                             |       |                           |
|-----------------------------|-------|---------------------------|
| Operating voltage           | $U_B$ | 6 ... 30 V DC             |
| Switching frequency         | $f$   | 0 ... 5 Hz                |
| Hysteresis                  | $H$   | 3 ... 15 typ. 5 %         |
| Reverse polarity protection |       | reverse polarity tolerant |
| Short-circuit protection    |       | no                        |

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

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## Technical Data

|                                |       |                    |
|--------------------------------|-------|--------------------|
| Voltage drop                   | $U_d$ | $\leq 5.5$ V DC    |
| Operating current              | $I_L$ | 2 ... 100 mA       |
| Off-state current              | $I_r$ | $\leq 800$ $\mu$ A |
| Switching state indicator      |       | LED, red           |
| Mag. Field strength, AC fields |       | 250 mT             |
| Mag. Field strength, DC fields |       | 250 mT             |

### Compliance with standards and directives

|                     |  |                  |
|---------------------|--|------------------|
| Standard conformity |  |                  |
| Standards           |  | EN IEC 60947-5-2 |

### Approvals and certificates

|              |  |                                                                                                                                                           |
|--------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| UL approval  |  | cULus Listed<br>Circuitry: Class 2 Power Source<br>Enclosure Type Rating: Type 1<br>Supply/Switching Voltage: 30 V DC<br>Output Switching Current: 100 mA |
| CCC approval |  | CCC approval / marking not required for products rated $\leq 36$ V                                                                                        |

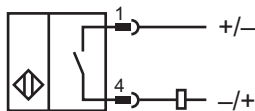
### Ambient conditions

|                     |  |                                |
|---------------------|--|--------------------------------|
| Ambient temperature |  | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--|--------------------------------|

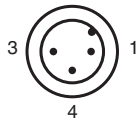
### Mechanical specifications

|                      |   |                                                                          |
|----------------------|---|--------------------------------------------------------------------------|
| Connection type      |   | fixed cable with plug                                                    |
| Housing material     |   | Xylan coated - Stainless steel 1.4305 / AISI 303                         |
| Sensing face         |   | Xylan coated - Stainless steel 1.4305 / AISI 303                         |
| Degree of protection |   | IP67 / IP68 / IP69K - cordset dependent according to cable specification |
| Connector            |   |                                                                          |
| Threading            |   | M12 x 1                                                                  |
| Tightening torque    |   | $\leq 0.6$ Nm                                                            |
| Number of pins       |   | 3                                                                        |
| Cable                |   |                                                                          |
| Cable diameter       |   | 4.8 mm $\pm$ 0.2 mm                                                      |
| Material             |   | POC                                                                      |
| Color                |   | orange                                                                   |
| Number of cores      |   | 4                                                                        |
| Core cross section   |   | 0.34 mm <sup>2</sup>                                                     |
| Length               | L | 300 mm                                                                   |
| Mass                 |   | 45 g                                                                     |
| Dimensions           |   |                                                                          |
| Length               |   | 40 mm                                                                    |
| Diameter             |   | 12 mm                                                                    |

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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