



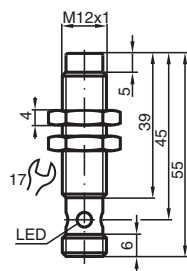
## Inductive sensor

### NCN8-12GM40-Z4-V1

- 8 mm non-flush
- 2-wire DC
- Increased operating distance



## Dimensions



## Technical Data

### General specifications

|                            |       |                    |
|----------------------------|-------|--------------------|
| Switching function         |       | Normally open (NO) |
| Output type                |       | Two-wire           |
| Rated operating distance   | $s_n$ | 8 mm               |
| Installation               |       | non-flush          |
| Output polarity            |       | DC                 |
| Assured operating distance | $s_a$ | 0 ... 6.48 mm      |
| Reduction factor $r_{AI}$  |       | 0.49               |
| Reduction factor $r_{Cu}$  |       | 0.49               |
| Reduction factor $r_{304}$ |       | 0.74               |
| Output type                |       | 2-wire             |

### Nominal ratings

|                             |       |                             |
|-----------------------------|-------|-----------------------------|
| Operating voltage           | $U_B$ | 3.5 ... 30 V                |
| Switching frequency         | $f$   | 0 ... 750 Hz                |
| Hysteresis                  | $H$   | typ. 3 %                    |
| Reverse polarity protection |       | reverse polarity-conductive |
| Short-circuit protection    |       | pulsing                     |

Release date: 2024-10-31 Date of issue: 2024-10-31 Filename: 121011\_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

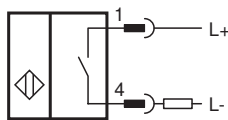
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

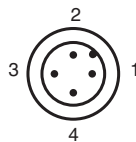
Technical Data

|                                          |                |                                                              |
|------------------------------------------|----------------|--------------------------------------------------------------|
| Voltage drop                             | U <sub>d</sub> | ≤ 3.5 V                                                      |
| Temperature drift                        |                | ± 15%                                                        |
| Operating current                        | I <sub>L</sub> | 2 ... 100 mA                                                 |
| Off-state current                        | I <sub>r</sub> | 0.4 ... 0.6 mA typ. 0.5 mA                                   |
| Switching state indicator                |                | LED, yellow                                                  |
| Stability alarm indicator                |                | LED, red                                                     |
| Stability control-switch point           |                | 0,8 s <sub>r</sub> ... 0,9 s <sub>r</sub>                    |
| 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)                               |
| Storage temperature                      |                | -40 ... 85 °C (-40 ... 185 °F)                               |
| Mechanical specifications                |                |                                                              |
| Connection type                          |                | Connector plug                                               |
| Housing material                         |                | brass, nickel-plated                                         |
| Sensing face                             |                | PBT                                                          |
| Degree of protection                     |                | IP67                                                         |
| Connector                                |                |                                                              |
| Threading                                |                | M12 x 1                                                      |
| Number of pins                           |                | 4                                                            |
| Mass                                     |                | 30 g                                                         |
| Dimensions                               |                |                                                              |
| Length                                   |                | 35 mm                                                        |
| Diameter                                 |                | 12 mm                                                        |

Connection



Connection Assignment



Release date: 2024-10-31 Date of issue: 2024-10-31 Filename: 121011\_eng.pdf

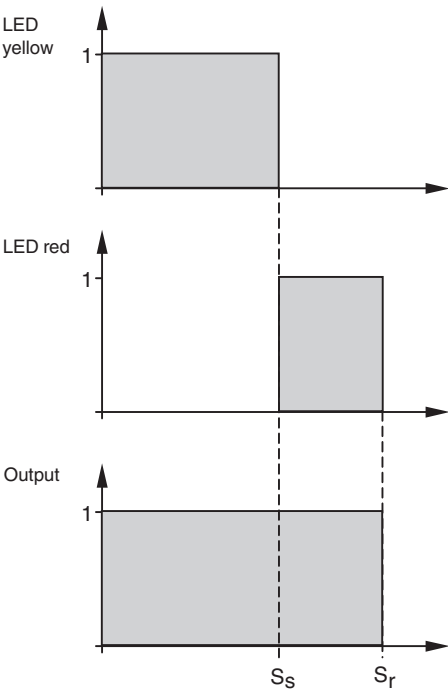
Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

Operation

Correlation between output signal/LED-function  
and stable operating distance  $s_s$ /effective  
operating distance  $s_r$ : ( $s_s$  typ. 80 % of  $s_r$ )



Release date: 2024-10-31 Date of issue: 2024-10-31 Filename: 121011\_eng.pdf