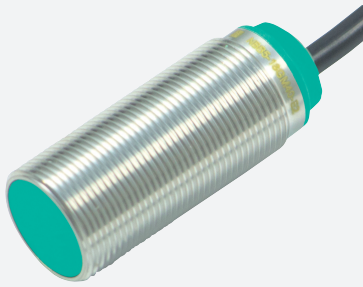


Inductive sensor

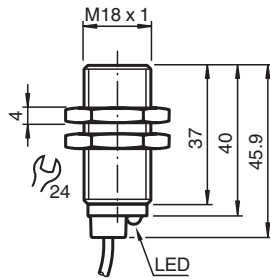
NBB8-18GM40-EU-M1



- 8 mm flush
- 0.5 / 4.5 VDC switching output for mobile equipment controls
- Raised EMC resistance 30 V/m
- Extended temperature range
-40 ... +85 °C
- Highly shock and vibration resistant
- With increased sealing, protection class
IP68 / IP69K



Dimensions



Technical Data

| General specifications | | | |
|------------------------------|-------|--|---|
| Output type | | | Digital voltage output |
| Rated operating distance | s_n | | 8 mm |
| Installation | | | flush |
| Output polarity | | | DC |
| Assured operating distance | s_a | | 0 ... 6.48 mm |
| Actuating element | | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 24 mm x 24 mm x 1 mm |
| Reduction factor r_{Al} | | | 0.4 |
| Reduction factor r_{Cu} | | | 0.3 |
| Reduction factor r_{304} | | | 0.7 |
| Reduction factor r_{Brass} | | | 0.45 |
| Output type | | | 3-wire |
| Nominal ratings | | | |
| Operating voltage | U_B | | 7 ... 30 V DC |
| Switching frequency | f | | 0 ... 1600 Hz |
| Hysteresis | H | | 2 ... 15 % |

Release date: 2022-07-19 Date of issue: 2022-07-19 Filename: 70128599_eng.pdf

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

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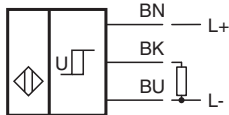
Singapore: +65 6779 9091
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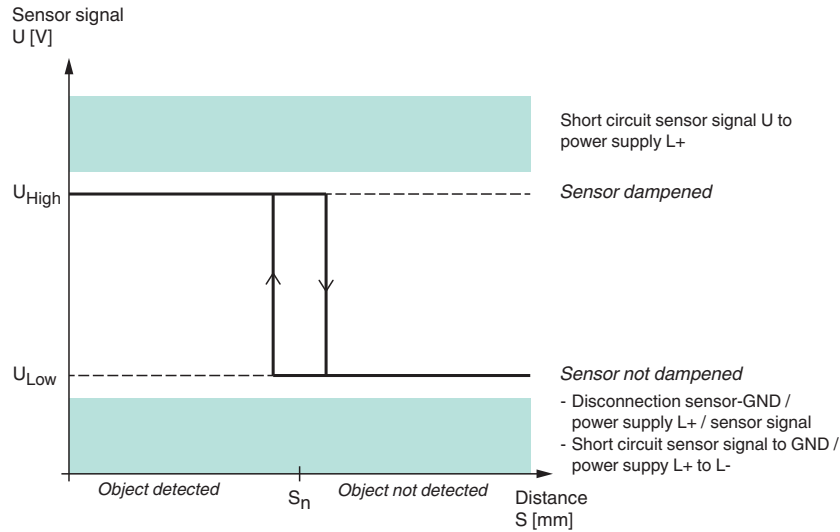
Technical Data

| | | |
|---|-------|---|
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | yes |
| Temperature drift | | ≤ 10 % |
| No-load supply current | I_0 | ≤ 15 mA |
| Time delay before availability | t_v | ≤ 100 ms |
| Load resistor | | min. 20 kΩ |
| Switching state indicator | | LED, yellow |
| Digital output | | |
| Output value | | object detected: 4.5 V ± 0.2 V object not detected: 0.5 V ± 0.2 V |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | cable |
| Housing material | | brass , white bronze coated |
| Sensing face | | PBT , green |
| Degree of protection | | IP68 / IP69K |
| Cable | | |
| Cable diameter | | 6 mm ± 0.2 mm |
| Bending radius | | > 10 x cable diameter |
| Material | | TPE |
| Color | | black |
| Number of cores | | 3 |
| Core cross section | | 0.75 mm ² |
| Length | L | 2 m |
| General information | | |
| Scope of delivery | | 2 self locking nuts in scope of delivery |

Connection



Operation



Technical Features

Mains-borne interference in accordance with ISO 7637-2:

| | | | | | | |
|-------------------|-----|-----|-----|-----|-----|-----|
| Pulse | 1 | 2a | 2b | 3a | 3b | 4 |
| Severity level | III | III | III | III | III | III |
| Failure criterion | A | A | C | A | A | C |

EN 61000-4-2: CD: 8 kV / AD: 15 kV
Severity level IV IV

EN 61000-4-3: 36 V/m (80...2500 MHz)
Severity level IV

EN 61000-4-4: 2 kV
Severity level III

EN 61000-4-6: 30 V (0.01...80 MHz)
Severity level III

EN 55011: Class A

Accessories

| | | |
|--|-----------------|---|
| | CPZ18B03 | Mounting Bracket with swivel nut |
| | BF 18-F | Plastic mounting adapter, 18 mm |
| | BF 5-30 | Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm |
| | BF 18 | Mounting flange, 18 mm |

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