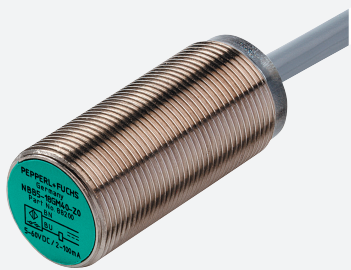


# Inductive sensor

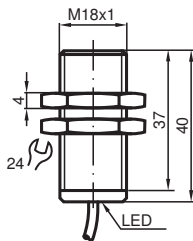
## NCB5-18GM40-Z0-3G-3D



- Comfort series
- ATEX-approval for zone 2 and zone 22



### Dimensions



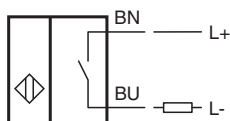
### Technical Data

| General specifications            |                |                          |
|-----------------------------------|----------------|--------------------------|
| Switching function                |                | Normally open (NO)       |
| Output type                       |                | Two-wire                 |
| Rated operating distance          | s <sub>n</sub> | 5 mm                     |
| Installation                      |                | flush                    |
| Output polarity                   |                | DC                       |
| Assured operating distance        | s <sub>a</sub> | 0 ... 4.05 mm            |
| Actual operating distance         | s <sub>r</sub> | 4.5 ... 5.5 mm typ. 5 mm |
| Reduction factor r <sub>Al</sub>  |                | 0.37                     |
| Reduction factor r <sub>Cu</sub>  |                | 0.33                     |
| Reduction factor r <sub>304</sub> |                | 0.7                      |
| Output type                       |                | 2-wire                   |
| Nominal ratings                   |                |                          |

## Technical Data

|                                                    |       |                                                                                                                                    |
|----------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------|
| Operating voltage                                  | $U_B$ | 5 ... 60 V                                                                                                                         |
| Switching frequency                                | $f$   | 0 ... 350 Hz                                                                                                                       |
| Hysteresis                                         | $H$   | 1 ... 10 typ. 5 %                                                                                                                  |
| Reverse polarity protection                        |       | reverse polarity tolerant                                                                                                          |
| Short-circuit protection                           |       | pulsing                                                                                                                            |
| Voltage drop                                       | $U_d$ | $\leq 5$ V                                                                                                                         |
| Operating current                                  | $I_L$ | 2 ... 100 mA                                                                                                                       |
| Lowest operating current                           | $I_m$ | 2 mA                                                                                                                               |
| Off-state current                                  | $I_r$ | 0 ... 0.5 mA typ.                                                                                                                  |
| Switching state indicator                          |       | all direction LED, yellow                                                                                                          |
| <b>Functional safety related parameters</b>        |       |                                                                                                                                    |
| MTTF <sub>d</sub>                                  |       | 1739 a                                                                                                                             |
| Mission Time ( $T_M$ )                             |       | 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                                                                                                      |
| CSA approval                                       |       | cCSAus Listed, General Purpose                                                                                                     |
| CCC approval                                       |       | Certified by China Compulsory Certification (CCC)                                                                                  |
| <b>Ambient conditions</b>                          |       |                                                                                                                                    |
| Ambient temperature                                |       | -25 ... 70 °C (-13 ... 158 °F)                                                                                                     |
| <b>Mechanical specifications</b>                   |       |                                                                                                                                    |
| Connection type                                    |       | cable PVC , 2 m                                                                                                                    |
| Cable version                                      |       | PA                                                                                                                                 |
| Core cross-section                                 |       | 0.34 mm <sup>2</sup>                                                                                                               |
| Housing material                                   |       | Stainless steel 1.4305 / AISI 303                                                                                                  |
| Sensing face                                       |       | PBT                                                                                                                                |
| Degree of protection                               |       | IP66 / IP67                                                                                                                        |
| Cable                                              |       |                                                                                                                                    |
| Cable diameter                                     |       | 4.8 mm $\pm$ 0.2 mm                                                                                                                |
| Bending radius                                     |       | > 10 x cable diameter                                                                                                              |
| <b>Equipment protection level Dc (tc)</b>          |       |                                                                                                                                    |
| <b>Special conditions</b>                          |       |                                                                                                                                    |
| Maximum permissible ambient temperature $T_{Umax}$ |       | dependant of the load current $I_L$ and the max. operating voltage $U_{Bmax}$<br>Information can be taken from the following list. |
| <b>General information</b>                         |       |                                                                                                                                    |
| Use in the hazardous area                          |       | see instruction manuals                                                                                                            |

## Connection



Accessories

|                                                                                   |               |                                       |
|-----------------------------------------------------------------------------------|---------------|---------------------------------------|
|  | <b>BF 18</b>  | Mounting flange, 18 mm                |
|  | <b>EXG-18</b> | Quick mounting bracket with dead stop |

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