



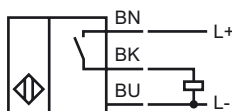
### Model Number

NBN8-18GM50-E2-10M

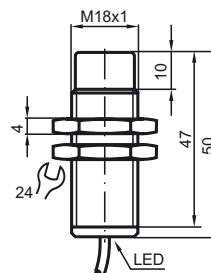
### Features

- Basic series
- Sensing range 8 mm
- 3-wire DC

### Connection



### Dimensions



### Technical Data

#### General specifications

|                             |       |                |
|-----------------------------|-------|----------------|
| Switching element function  | PNP   | NO             |
| Rated operating distance    | $s_n$ | 8 mm           |
| Installation                |       | not embeddable |
| Output polarity             |       | DC             |
| Assured operating distance  | $s_a$ | 0 ... 6.48 mm  |
| Reduction factor $r_{AI}$   |       | 0.5            |
| Reduction factor $r_{Cu}$   |       | 0.4            |
| Reduction factor $r_{V2A}$  |       | 0.7            |
| Reduction factor $r_{Si37}$ |       |                |

#### Nominal ratings

|                                   |       |                                        |
|-----------------------------------|-------|----------------------------------------|
| Operating voltage                 | $U_B$ | 10 ... 30 V                            |
| Switching frequency               | $f$   | 0 ... 500 Hz                           |
| Hysteresis                        | $H$   | typ. 5%                                |
| Reverse polarity protected        |       | yes                                    |
| Short-circuit protection          |       | yes                                    |
| Voltage drop                      | $U_d$ | $\leq 3$ V                             |
| Operating current                 | $I_L$ | 0 ... 200 mA                           |
| Off-state current                 | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C |
| No-load supply current            | $I_0$ | $\leq 18$ mA                           |
| Indication of the switching state |       | all direction LED, yellow              |

#### Functional safety related parameters

|                          |        |
|--------------------------|--------|
| MTTF <sub>d</sub>        | 1190 a |
| Mission Time ( $T_M$ )   | 20 a   |
| Diagnostic Coverage (DC) | 0 %    |

#### Ambient conditions

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

#### Mechanical specifications

|                    |                      |
|--------------------|----------------------|
| Connection type    | cable PVC, 10 m      |
| Core cross-section | 0.34 mm <sup>2</sup> |
| Housing material   | brass, nickel-plated |
| Sensing face       | PBT                  |
| Protection degree  | IP67                 |

#### Compliance with standards and directives

|                     |                                         |
|---------------------|-----------------------------------------|
| Standard conformity |                                         |
| Standards           | EN 60947-5-2:2007<br>IEC 60947-5-2:2007 |

#### Approvals and certificates

|              |                                                                                                                          |
|--------------|--------------------------------------------------------------------------------------------------------------------------|
| UL approval  | cULus Listed, General Purpose                                                                                            |
| CSA approval | cCSAus Listed, General Purpose                                                                                           |
| CCC approval | Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval. |