

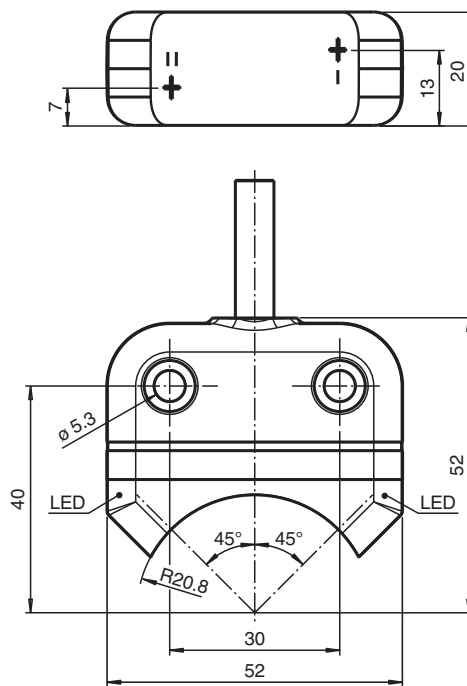


## Inductive sensor NBN4-F25-2Z4L-0,14M

- Direct mounting on standard actuators
- Small construction with sturdy plastic housing of protection class IP 67
- 2-wire DC sensor with minimum off-state current



### Dimensions



### Technical Data

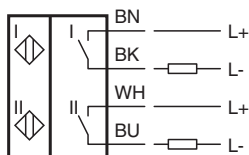
#### General specifications

|                            |       |                                         |
|----------------------------|-------|-----------------------------------------|
| Switching function         |       | Normally open (NO)                      |
| Output type                |       | Two-wire with minimum off-state current |
| Rated operating distance   | $s_n$ | 4 mm                                    |
| Installation               |       | flush mountable                         |
| Output polarity            |       | DC                                      |
| Assured operating distance | $s_a$ | 0 ... 3.24 mm                           |
| Actual operating distance  | $s_r$ | 3.6 ... 4.4 mm typ.                     |
| Reduction factor $r_{AI}$  |       | 0.6                                     |

## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Reduction factor $r_{Cu}$                       |       | 0.45                                                                                        |
| Reduction factor $r_{304}$                      |       | 1                                                                                           |
| Reduction factor $r_{Si37}$                     |       | 1.2                                                                                         |
| Output type                                     |       | 2x 2-wire                                                                                   |
| <b>Nominal ratings</b>                          |       |                                                                                             |
| Operating voltage                               | $U_B$ | 5 ... 30 V DC                                                                               |
| Switching frequency                             | $f$   | 0 ... 500 Hz                                                                                |
| Hysteresis                                      | $H$   | typ. 5 %                                                                                    |
| Reverse polarity protection                     |       | reverse polarity protected                                                                  |
| Short-circuit protection                        |       | pulsing                                                                                     |
| Voltage drop                                    | $U_d$ | $\leq 4.5$ V                                                                                |
| Operating current                               | $I_L$ | 4 ... 100 mA                                                                                |
| Off-state current                               | $I_r$ | 120 ... 200 $\mu$ A typ. 175 $\mu$ A at 25 °C                                               |
| Time delay before availability                  | $t_v$ | $\leq 100$ ms                                                                               |
| Switching state indicator                       |       | LED, yellow                                                                                 |
| <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                                                                                |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36$ V                          |
| <b>Ambient conditions</b>                       |       |                                                                                             |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                                              |
| Storage temperature                             |       | -40 ... 85 °C (-40 ... 185 °F)                                                              |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | cablc PVC , 180 mm                                                                          |
| Core cross-section                              |       | 0.14 mm <sup>2</sup>                                                                        |
| Housing material                                |       | PBT                                                                                         |
| Sensing face                                    |       | PC                                                                                          |
| Degree of protection                            |       | IP67                                                                                        |
| <b>Cable</b>                                    |       |                                                                                             |
| Cable diameter                                  |       | 3 mm + 0.3 mm                                                                               |
| Bending radius                                  |       | > 10 x cable diameter                                                                       |
| Mass                                            |       | 405 g                                                                                       |
| Tightening torque, fastening screws             |       | M5 x 25 : 2.7 Nm                                                                            |
| Note                                            |       | Mounted on mechanical drive                                                                 |

## Connection



## Accessories

|                                                                                   |                   |                                                                          |
|-----------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------|
|  | <b>BT32</b>       | Activator for F25 series                                                 |
|  | <b>BT33</b>       | Activator for F25 series                                                 |
|  | <b>BT34</b>       | Activator for F25 series                                                 |
|  | <b>BT32XAS</b>    | Activator for F25 series                                                 |
|  | <b>BT43-RG-01</b> | Activator for F25 series including protective housing and mounting plate |