

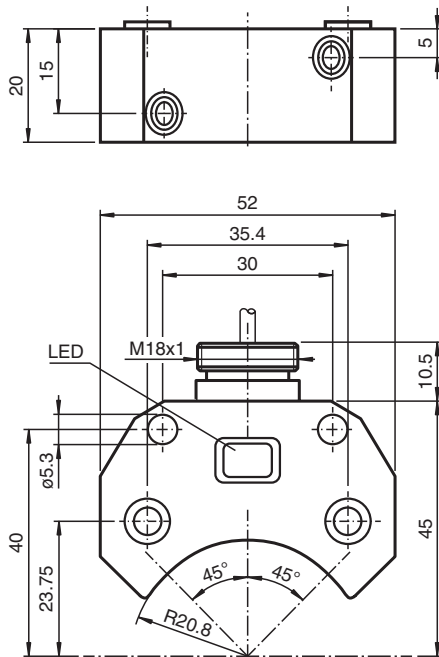
# Inductive sensor

## NBN3-F25F-E8-Y47291

- Direct mounting on standard actuators
- For installation in housing



### Dimensions



### Technical Data

#### General specifications

|                             |       |                        |
|-----------------------------|-------|------------------------|
| Switching function          |       | 2 x normally open (NO) |
| Output type                 |       | PNP                    |
| Rated operating distance    | $s_n$ | 3 mm                   |
| Installation                |       | flush mountable        |
| Output polarity             |       | DC                     |
| Assured operating distance  | $s_a$ | 0 ... 2.3 mm           |
| Actual operating distance   | $s_r$ | 2.6 ... 2.6 mm typ.    |
| Reduction factor $r_{AI}$   |       | 0.5                    |
| Reduction factor $r_{304}$  |       | 1                      |
| Reduction factor $r_{St37}$ |       | 1.1                    |
| Output type                 |       | 3-wire                 |

#### Nominal ratings

|                             |       |                 |
|-----------------------------|-------|-----------------|
| Operating voltage           | $U_B$ | 10 ... 30 V     |
| Switching frequency         | $f$   | 0 ... 500 Hz    |
| Hysteresis                  | $H$   | typ. 5 %        |
| Reverse polarity protection |       | all connections |
| Short-circuit protection    |       | pulsing         |

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

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**PEPPERL+FUCHS**

## Technical Data

|                                                 |       |                                                                            |
|-------------------------------------------------|-------|----------------------------------------------------------------------------|
| Voltage drop                                    | $U_d$ | $\leq 3 \text{ V}$                                                         |
| Operating current                               | $I_L$ | 0 ... 200 mA                                                               |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C                               |
| No-load supply current                          | $I_0$ | $\leq 25 \text{ mA}$                                                       |
| Time delay before availability                  | $t_v$ | $\leq 500 \text{ ms}$                                                      |
| Operating voltage indicator                     |       | LED, green                                                                 |
| Switching state indicator                       |       | LED, yellow                                                                |
| <b>Functional safety related parameters</b>     |       |                                                                            |
| MTTF <sub>d</sub>                               |       | 660 a                                                                      |
| Mission Time ( $T_M$ )                          |       | 20 a                                                                       |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                        |
| <b>Compliance with standards and directives</b> |       |                                                                            |
| Standard conformity                             |       |                                                                            |
| Standards                                       |       | EN IEC 60947-5-2                                                           |
| <b>Approvals and certificates</b>               |       |                                                                            |
| UL approval                                     |       | cULus Listed, General Purpose                                              |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36 \text{ V}$ |
| <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                                 |       | cable                                                                      |
| Housing material                                |       | PBT                                                                        |
| Sensing face                                    |       | PBT                                                                        |
| Degree of protection                            |       | IP67                                                                       |
| <b>Cable</b>                                    |       |                                                                            |
| Wire end ferrules                               |       | yes                                                                        |
| Cable diameter                                  |       | 4.8 mm $\pm$ 0.1 mm                                                        |
| Bending radius                                  |       | > 10 x cable diameter                                                      |
| Material                                        |       | PVC                                                                        |
| Color                                           |       | grey                                                                       |
| Number of cores                                 |       | 4                                                                          |
| Core cross section                              |       | 0.34 mm <sup>2</sup>                                                       |
| Length                                          | L     | 5 m                                                                        |
| Tightening torque, fastening screws             |       | M5 x 25 : $\leq 2.7 \text{ Nm}$                                            |
| <b>Dimensions</b>                               |       |                                                                            |
| Height                                          |       | 20 mm                                                                      |
| Width                                           |       | 52 mm                                                                      |
| Length                                          |       | 45 mm                                                                      |
| Note                                            |       | Installation in housing                                                    |

## Connection

