



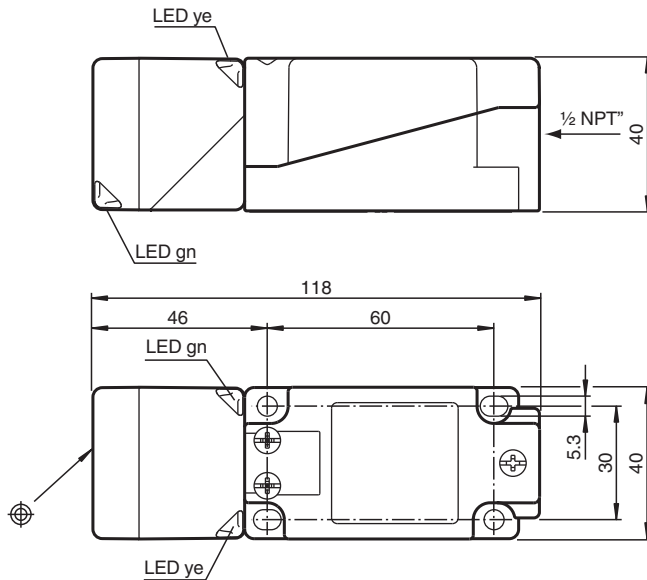
## Inductive sensor

### NBN30-U4-E0

- Sensor head bidirectional and rotatable
- 30 mm non-flush
- 4 LEDs indicator for 360° visibility



## Dimensions



## Technical Data

### General specifications

|                              |       |                         |
|------------------------------|-------|-------------------------|
| Switching function           |       | Normally open (NO)      |
| Output type                  |       | NPN                     |
| Rated operating distance     | $s_n$ | 30 mm                   |
| Installation                 |       | non-flush               |
| Output polarity              |       | DC                      |
| Assured operating distance   | $s_a$ | 0 ... 24.3 mm           |
| Actual operating distance    | $s_r$ | 27 ... 33 mm typ. 30 mm |
| Reduction factor $r_{Al}$    |       | 0.33                    |
| Reduction factor $r_{Cu}$    |       | 0.31                    |
| Reduction factor $r_{304}$   |       | 0.74                    |
| Reduction factor $r_{Brass}$ |       | 0.38                    |
| Output type                  |       | 3-wire                  |

### Nominal ratings

## Technical Data

|   |       |  |
|---|-------|--|
| Operating voltage                               | $U_B$ | 10 ... 30 V  |
| Switching frequency                             | f     | 0 ... 230 Hz   |
| Hysteresis                                      | H     | typ. 5 %   |
| Reverse polarity protection                     |       | reverse polarity protected   |
| Short-circuit protection                        |       | pulsing  |
| Voltage drop                                    | $U_d$ | $\leq 2$ 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                          | $I_0$ | $\leq 20$ mA   |
| Time delay before availability                  | $t_v$ | 80 ms  |
| Operating voltage indicator                     |       | LED, green   |
| Switching state indicator                       |       | LED, yellow  |
| <b>Functional safety related parameters</b>     |       |  |
| MTTF <sub>d</sub>                               |       | 1510 a   |
| Mission Time (T <sub>M</sub> )                  |       | 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 $\leq 36$ V |
| <b>Ambient conditions</b>                       |       |  |
| Ambient temperature                             |       | -25 ... 85 °C (-13 ... 185 °F)                                     |
| <b>Mechanical specifications</b>                |       |  |
| Connection type                                 |       | screw terminals  |
| Core cross section                              |       | max. 2.5 mm <sup>2</sup>   |
| Housing material                                |       | PA/metal with epoxy powder coating                                 |
| Sensing face                                    |       | PA   |
| Housing base                                    |       | metal  |
| Degree of protection                            |       | IP68 / IP69K   |
| Mass  |       | 225 g  |
| Dimensions                                      |       |  |
| Height  |       | 40 mm  |
| Width   |       | 40 mm  |
| Length  |       | 118 mm   |
| Note  |       | Tightening torque: 1.8 Nm (housing)                                |

## Connection

