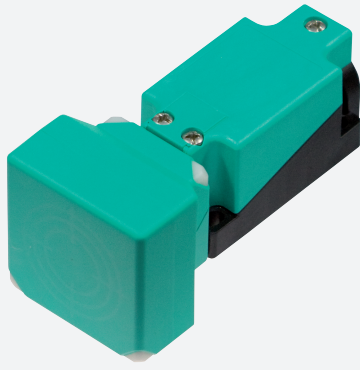


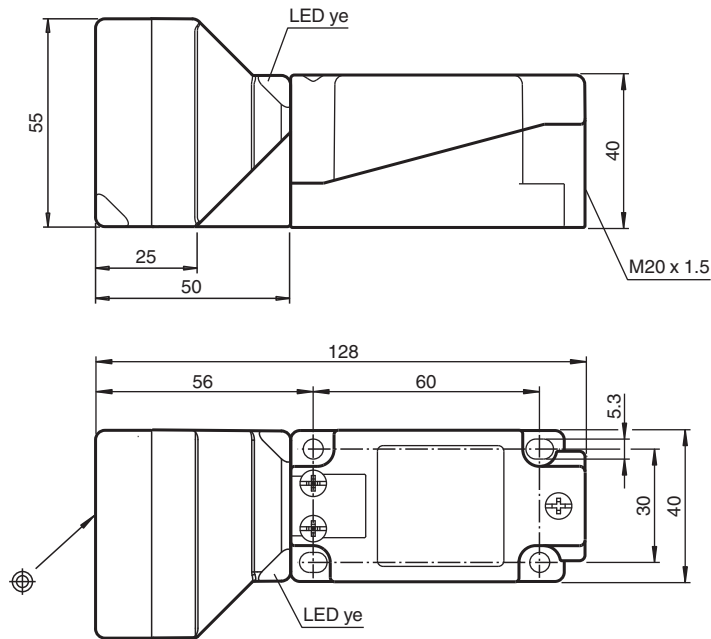


## Inductive sensor NBN40-U1LK-N0

- 40 mm non-flush
- NAMUR output
- Polarity reversal protected
- Sensor head bidirectional and rotatable



### Dimensions



### Technical Data

#### General specifications

|                              |       |                      |
|------------------------------|-------|----------------------|
| Switching function           |       | Normally closed (NC) |
| Output type                  |       | NAMUR                |
| Rated operating distance     | $s_n$ | 40 mm                |
| Installation                 |       | non-flush            |
| Assured operating distance   | $s_a$ | 0 ... 32.4 mm        |
| Reduction factor $r_{Al}$    |       | 0.41                 |
| Reduction factor $r_{Cu}$    |       | 0.38                 |
| Reduction factor $r_{304}$   |       | 0.75                 |
| Reduction factor $r_{Brass}$ |       | 0.46                 |
| Output type                  |       | 2-wire               |

#### Nominal ratings

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

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PEPPERL+FUCHS

## Technical Data

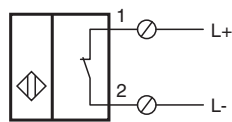
|                                                 |                |                                                                                                                                            |
|-------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Installation conditions                         |                |                                                                                                                                            |
| A                                               |                | 25 mm                                                                                                                                      |
| Nominal voltage                                 | U <sub>o</sub> | 8.2 V (R <sub>i</sub> approx. 1 kΩ)                                                                                                        |
| Switching frequency                             | f              | 0 ... 100 Hz                                                                                                                               |
| Hysteresis                                      | H              | 2 ... 20 % typ. 10 %                                                                                                                       |
| Reverse polarity protection                     |                | reverse polarity protected                                                                                                                 |
| Short-circuit protection                        |                | yes                                                                                                                                        |
| Current consumption                             |                |                                                                                                                                            |
| Measuring plate not detected                    |                | min. 2.5 mA                                                                                                                                |
| Measuring plate detected                        |                | ≤ 1 mA                                                                                                                                     |
| Switching state indicator                       |                | LED, yellow                                                                                                                                |
| <b>Compliance with standards and directives</b> |                |                                                                                                                                            |
| Standard conformity                             |                |                                                                                                                                            |
| NAMUR                                           |                | EN 60947-5-6:2000<br>IEC 60947-5-6:1999                                                                                                    |
| Electromagnetic compatibility                   |                | NE 21:2012                                                                                                                                 |
| Standards                                       |                | EN IEC 60947-5-2                                                                                                                           |
| <b>Approvals and certificates</b>               |                |                                                                                                                                            |
| IECEx approval                                  |                |                                                                                                                                            |
| Equipment protection level Ga                   |                | IECEx PTB 11.0021X                                                                                                                         |
| Equipment protection level Gb                   |                | IECEx PTB 11.0021X                                                                                                                         |
| Equipment protection level Da                   |                | IECEx PTB 11.0021X                                                                                                                         |
| Equipment protection level Mb                   |                | IECEx PTB 11.0021X                                                                                                                         |
| ATEX approval                                   |                |                                                                                                                                            |
| Equipment protection level Ga                   |                | PTB 00 ATEX 2032 X                                                                                                                         |
| Equipment protection level Gb                   |                | PTB 00 ATEX 2032 X                                                                                                                         |
| Equipment protection level Da                   |                | PTB 00 ATEX 2032 X                                                                                                                         |
| UL approval                                     |                |                                                                                                                                            |
| Ordinary Location                               |                | E87056                                                                                                                                     |
| Hazardous Location                              |                | E501628                                                                                                                                    |
| Control drawing                                 |                | 116-0451                                                                                                                                   |
| CCC approval                                    |                |                                                                                                                                            |
| Hazardous Location                              |                | 2020322315002302                                                                                                                           |
| NEPSI approval                                  |                |                                                                                                                                            |
| NEPSI certificate                               |                | GYJ16.1394X                                                                                                                                |
| CML approval                                    |                | on request                                                                                                                                 |
| ANZEx                                           |                | 19.3001X                                                                                                                                   |
| <b>Ambient conditions</b>                       |                |                                                                                                                                            |
| Ambient temperature                             |                | -25 ... 100 °C (-13 ... 212 °F)                                                                                                            |
| Storage temperature                             |                | -40 ... 100 °C (-40 ... 212 °F)                                                                                                            |
| <b>Mechanical specifications</b>                |                |                                                                                                                                            |
| Connection type                                 |                | screw terminals                                                                                                                            |
| Information for connection                      |                | A maximum of two conductors with the same core cross section may be mounted on one terminal connection!<br>tightening torque 1.2 Nm + 10 % |
| Core cross section                              |                | up to 2.5 mm <sup>2</sup> , stripped insulation length: 7 mm                                                                               |
| Minimum core cross-section                      |                | without wire end ferrules 0.5 mm <sup>2</sup> , with connector sleeves 0.34 mm <sup>2</sup>                                                |
| Maximum core cross-section                      |                | without wire end ferrules 2.5 mm <sup>2</sup> , with connector sleeves 1.5 mm <sup>2</sup>                                                 |
| Connection (system side)                        |                | screw terminals, M20 x 1.5 cable gland, usable thread length 9.1 mm, screw-in depth max. 9.1 mm                                            |
| Housing material                                |                | PA                                                                                                                                         |
| Sensing face                                    |                | PA                                                                                                                                         |
| Housing base                                    |                | plastic                                                                                                                                    |
| Degree of protection                            |                | IP67 / IP69K                                                                                                                               |

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Technical Data

|                           |                         |
|---------------------------|-------------------------|
| Dimensions                |                         |
| Height                    | 55 mm                   |
| Width                     | 55 mm                   |
| Length                    | 128 mm                  |
| General information       |                         |
| Use in the hazardous area | see instruction manuals |

Connection Assignment



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