

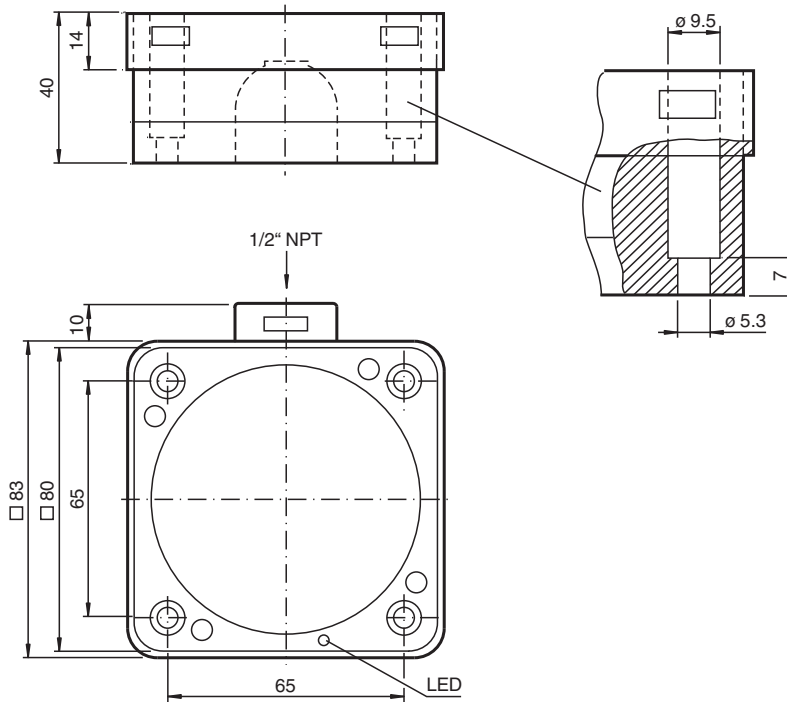


# Inductive sensor NCB40-FP-N0-P4

■ 40 mm flush



## Dimensions



## Technical Data

### General specifications

|                            |       |                         |
|----------------------------|-------|-------------------------|
| Switching function         |       | Normally closed (NC)    |
| Output type                |       | NAMUR                   |
| Rated operating distance   | $s_n$ | 40 mm                   |
| Installation               |       | flush                   |
| Assured operating distance | $s_a$ | 0 ... 32 mm             |
| Actual operating distance  | $s_r$ | 36 ... 44 mm typ. 40 mm |
| Reduction factor $r_{Al}$  |       | 0.35                    |
| Reduction factor $r_{Cu}$  |       | 0.35                    |
| Reduction factor $r_{304}$ |       | 0.8                     |

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PEPPERL+FUCHS**

## Technical Data

|                                                 |                |                                                                                                                                            |
|-------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Output type                                     |                | 2-wire                                                                                                                                     |
| <b>Nominal ratings</b>                          |                |                                                                                                                                            |
| Nominal voltage                                 | U <sub>o</sub> | 8.2 V (R <sub>i</sub> approx. 1 kΩ)                                                                                                        |
| Switching frequency                             | f              | 0 ... 80 Hz                                                                                                                                |
| Hysteresis                                      | H              | 0 ... 5 typ. 3 %                                                                                                                           |
| Reverse polarity protection                     |                | reverse polarity protected                                                                                                                 |
| Short-circuit protection                        |                | yes                                                                                                                                        |
| Current consumption                             |                |                                                                                                                                            |
| Measuring plate not detected                    |                | ≥ 3 mA                                                                                                                                     |
| Measuring plate detected                        |                | ≤ 1 mA                                                                                                                                     |
| Time delay before availability                  | t <sub>v</sub> | ≤ 20 ms                                                                                                                                    |
| 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 21:2007                                                                                                                                 |
| 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                                                                                                                         |
| 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                              |                | 2020322315002304                                                                                                                           |
| NEPSI approval                                  |                |                                                                                                                                            |
| NEPSI certificate                               |                | GYJ16.1394X                                                                                                                                |
| CML approval                                    |                | on request                                                                                                                                 |
| <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>                                                                                                                  |
| 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>                                                 |
| Housing material                                |                | PBT/metal                                                                                                                                  |
| Sensing face                                    |                | PBT                                                                                                                                        |
| Housing base                                    |                | aluminum painted                                                                                                                           |
| Degree of protection                            |                | IP67                                                                                                                                       |
| Dimensions                                      |                |                                                                                                                                            |
| Height                                          |                | 40 mm                                                                                                                                      |
| Width                                           |                | 83 mm                                                                                                                                      |

Release date: 2024-05-28 Date of issue: 2024-06-01 Filename: 70133126\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

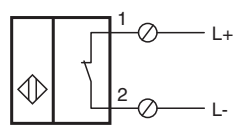
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

Technical Data

|                           |       |                                     |
|---------------------------|-------|-------------------------------------|
| Length                    | 83 mm |                                     |
| Note                      |       | Tightening torque: 1.8 Nm (housing) |
| General information       |       |                                     |
| Use in the hazardous area |       | see instruction manuals             |

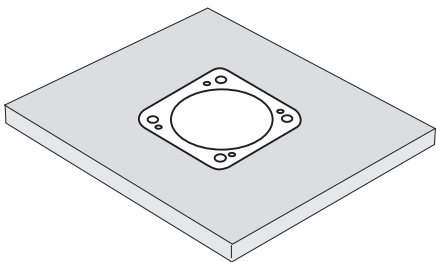
Connection



Installation Conditions

These sensors are especially designed for embeddable mounting in conveyor floors. Due to its precise location in metal base plates the sensor is afforded a high degree of mechanical protection. No clearance is required between the sensor and the base plate, avoiding the need for protective guarding to prevent possible foot injury.

The large sensing range ensures positive detection, and thus provides consistent control and monitoring of the conveyor.



Release date: 2024-05-28 Date of issue: 2024-06-01 Filename: 70133126\_eng.pdf