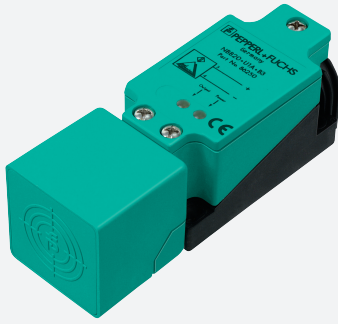


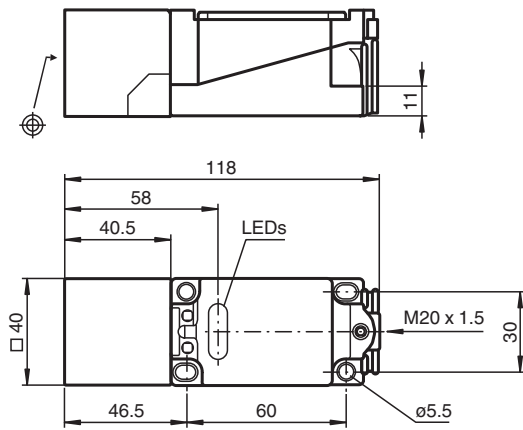
# Inductive sensor NCN20+U1+Z2



■ Comfort series



## Dimensions



## Technical Data

### General specifications

|                            |       |                              |
|----------------------------|-------|------------------------------|
| Switching function         |       | Normally open/closed (NO/NC) |
| Output type                |       | Two-wire                     |
| Rated operating distance   | $s_n$ | 20 mm                        |
| Installation               |       | non-flush                    |
| Output polarity            |       | DC                           |
| Assured operating distance | $s_a$ | 0 ... 16.2 mm                |
| Actual operating distance  | $s_r$ | 18 ... 22 mm typ. 20 mm      |
| Reduction factor $r_{Al}$  |       | 0.37                         |
| Reduction factor $r_{Cu}$  |       | 0.35                         |
| Reduction factor $r_{304}$ |       | 0.79                         |
| Output type                |       | 2-wire                       |

### Nominal ratings

|                             |       |                           |
|-----------------------------|-------|---------------------------|
| Operating voltage           | $U_B$ | 5 ... 60 V                |
| Switching frequency         | $f$   | 0 ... 250 Hz              |
| Hysteresis                  | $H$   | 1 ... 10 typ. 5 %         |
| Reverse polarity protection |       | reverse polarity tolerant |

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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

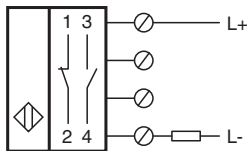
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

## Technical Data

|   |       |   |
|---|-------|---|
| Short-circuit protection                                  |       | pulsing   |
| Voltage drop  | $U_d$ | $\leq 5 \text{ V}$                                |
| Voltage drop at $I_L$                                     |       |   |
| Voltage drop $I_L = 20 \text{ mA}$ , switching element on | $U_d$ | 3.4 ... 5 V typ. 4.3 V                            |
| Operating current   | $I_L$ | 2 ... 200 mA                                      |
| Lowest operating current                                  | $I_m$ | 2 mA  |
| Off-state current   | $I_r$ | 0 ... 1 mA typ. 0.7 mA                            |
| Time delay before availability                            | $t_v$ | $\leq 100 \text{ ms}$                             |
| Switching state indicator                                 |       | LED, yellow                                       |
| <b>Compliance with standards and directives</b>           |       |   |
| Standard conformity                                       |       |   |
| Standards   |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007           |
| <b>Approvals and certificates</b>                         |       |   |
| UL approval   |       | cULus Listed, General Purpose                     |
| CSA approval  |       | cCSAus Listed, General Purpose                    |
| CCC approval  |       | Certified by China Compulsory Certification (CCC) |
| <b>Ambient conditions</b>                                 |       |   |
| Ambient temperature                                       |       | -25 ... 70 °C (-13 ... 158 °F)                    |
| Storage temperature                                       |       | -25 ... 85 °C (-13 ... 185 °F)                    |
| <b>Mechanical specifications</b>                          |       |   |
| Connection type   |       | screw terminals                                   |
| Core cross-section  |       | up to 2.5 mm <sup>2</sup>                         |
| Housing material  |       | PBT   |
| Sensing face  |       | PBT   |
| Degree of protection                                      |       | IP68  |

## Connection



## Accessories

|  |                    |   |
|--|--------------------|---|
|  | <b>V1-M20-80</b>   | Receptacles, M12/M20; plastic version                                   |
|  | <b>MHW 01</b>      | Modular mounting bracket  |
|  | <b>V1-W-2M-PUR</b> | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey   |
|  | <b>V1-G-2M-PUR</b> | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |