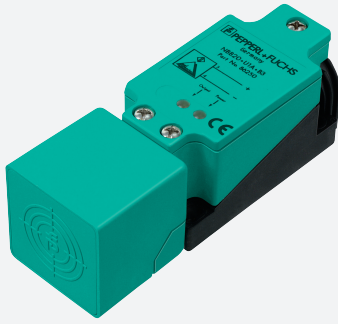


# Inductive sensor

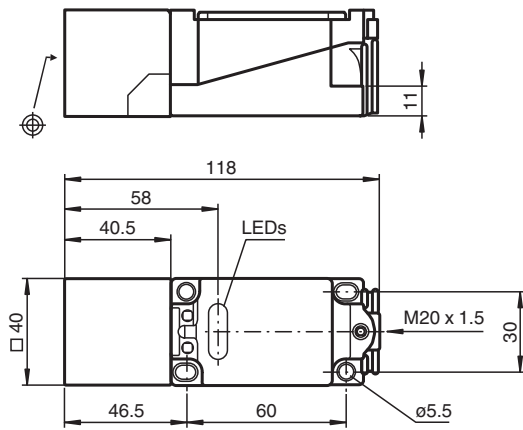
## NJ20+U1+E2



- Comfort series
- 20 mm flush



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	20 mm
Installation		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 $r_{Al}$		0.35
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.8
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 60 V
Switching frequency	$f$	0 ... 150 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity protected

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

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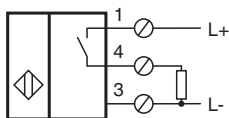
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PEPPERL+FUCHS

## Technical Data

Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.8 \text{ V}$
Voltage drop at $I_L$		
Voltage drop $I_L = 1 \text{ mA}$ , switching element on	$U_d$	0.5 ... 2.3 V typ. 0.9 V
Voltage drop $I_L = 10 \text{ mA}$ , switching element on	$U_d$	0.8 ... 2.2 V typ. 1.4 V
Voltage drop $I_L = 20 \text{ mA}$ , switching element on	$U_d$	0.9 ... 2.3 V typ. 1.5 V
Voltage drop $I_L = 50 \text{ mA}$ , switching element on	$U_d$	0.9 ... 2.5 V typ. 1.6 V
Voltage drop $I_L = 100 \text{ mA}$ , switching element on	$U_d$	1 ... 2.6 V typ. 1.8 V
Voltage drop $I_L = 200 \text{ mA}$ , switching element on	$U_d$	1.2 ... 2.8 V typ. 2 V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
Off-state current $T_U = 40 \text{ }^\circ\text{C}$ , switching element off		$\leq 100 \text{ }\mu\text{A}$
No-load supply current	$I_0$	$\leq 10 \text{ mA}$
Time delay before availability	$t_v$	$\leq 50 \text{ ms}$
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 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 $^\circ\text{C}$ (-13 ... 158 $^\circ\text{F}$ )
Storage temperature		-25 ... 85 $^\circ\text{C}$ (-13 ... 185 $^\circ\text{F}$ )
<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
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**Accessories**



**MHW 01**

Modular mounting bracket

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