

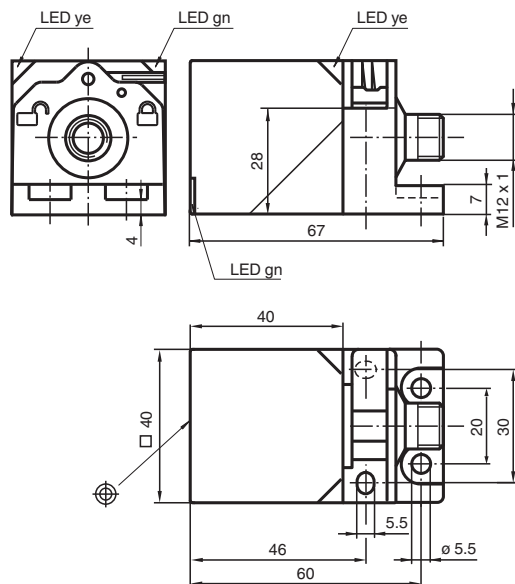


# Inductive sensor NRB20-L3-A2-C-V1

- 20 mm flush
- Reduction factor = 1
- Weld Immune
- Quick mounting bracket
- 4-way LED indicator



## Dimensions



## Technical Data

### General specifications

Switching function		complementary
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 $r_{Al}$		1
Reduction factor $r_{Cu}$		1
Reduction factor $r_{304}$		1
Reduction factor $r_{S137}$		1
Output type		4-wire

### Nominal ratings

Release date: 2024-12-03 Date of issue: 2024-12-03 Filename: 306534-0101\_eng.pdf

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

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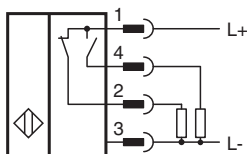
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## Technical Data

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 440 Hz
Hysteresis	$H$	3 ... 15 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.5$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
No-load supply current	$I_0$	$\leq 25$ mA
Time delay before availability	$t_v$	15 ms
Constant magnetic field	$B$	200 mT
Alternating magnetic field	$B$	200 mT
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1123 a
Mission Time ( $T_M$ )		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>		
Protection class		
Rated insulation voltage	$U_i$	60 V
Rated impulse withstand voltage	$U_{imp}$	800 V
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		
		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		
		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		
		Connector plug M12 x 1 , 4-pin
Housing material		
		GD-ZnAl4Cu1, coated mounting flange PA6-GF35
Sensing face		
		PA 6 Grivory GVN-35H
Degree of protection		
		IP67
Mass		
		180 g
Dimensions		
Height		40 mm
Width		40 mm
Length		67 mm

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)