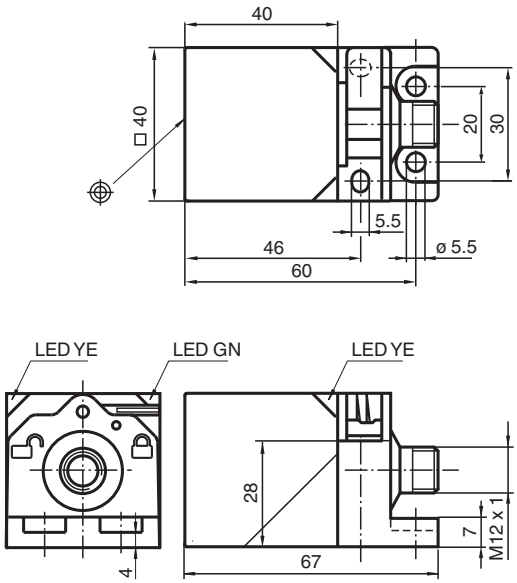


Inductive sensor

NBB20-L3-A2-C3-V1

- 20 mm flush
- 4-wire DC
- Weld Immune
- Quick mounting bracket
- 2-way LED indicator
- Active surface thermoset

Dimensions



Technical Data

General specifications	
Switching function	complementary

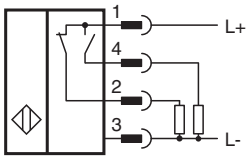
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Technical Data

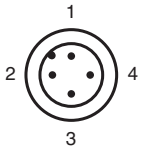
Output type		PNP
Rated operating distance	s_n	20 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 16.2 mm
Actual operating distance	s_r	18 ... 22 mm
Reduction factor r_{Al}		0.42
Reduction factor r_{Cu}		0.38
Reduction factor r_{304}		0.75
Reduction factor r_{Brass}		0.49
Output type		4-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 5 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA
No-load supply current	I_0	≤ 20 mA
Time delay before availability	t_v	80 ms
Alternating magnetic field	B	200 mT
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1420 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates		
UL approval		cULus Listed, General Purpose
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		GD-ZnAl4Cu1, coated mounting flange PA6-GF35
Sensing face		Thermoset Plastic
Housing base		Zinc, PTFE coated
Degree of protection		IP67

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Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Accessories

	**V1-G-OR2M-POC**	Female cordset single-ended M12 A-coded 4-pin, TPE cable welding-bead resistant orange

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