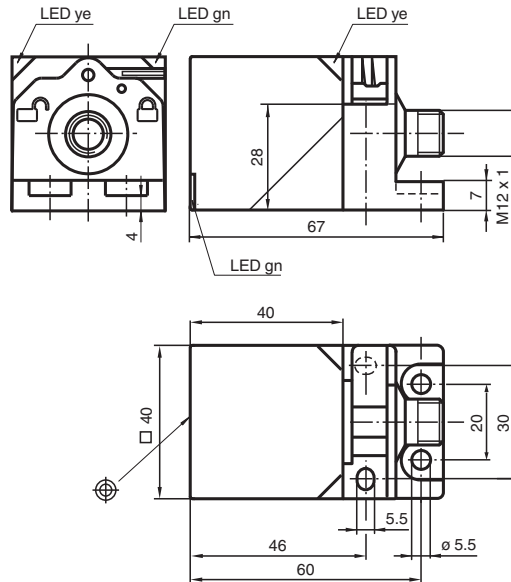


Inductive sensor NRB20-L3-A2-V1

- 20 mm flush
- Reduction factor = 1
- Magnetic field resistant
- 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

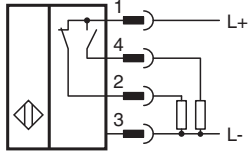
Nominal ratings

Release date: 2025-06-10 Date of issue: 2025-06-10 Filename: 306534-0103_eng.pdf

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	≤ 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	≤ 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
Functional safety related parameters		
MTTF _d		1123 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
Protection class		
		II
Rated insulation voltage	U_i	60 V
Rated impulse withstand voltage	U_{imp}	800 V
UL approval		cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		
		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		
		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		
		Connector plug
Housing material		
		GD-ZnAl4Cu1, coated mounting flange PA6-GF35
Sensing face		
		PA 6 Grivory GVN-35H
Degree of protection		
		IP67
Connector		
Threading		
		M12 x 1
Number of pins		
		4
Mass		
		180 g
Dimensions		
Height		
		40 mm
Width		
		40 mm
Length		
		67 mm

Connection Assignment



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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