



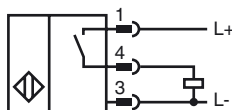
**Model Number**

NRB20-L3-E2-V1

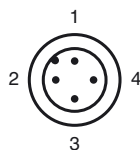
**Features**

- 20 mm flush
- Reduction factor = 1
- Magnetic field resistant
- Quick mounting bracket
- 4-way LED indicator

**Connection**



**Pinout**



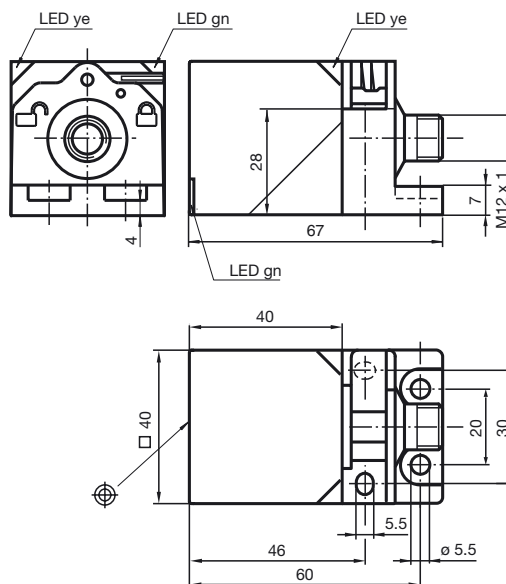
Wire colors in accordance with EN 60947-5-2

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

**Accessories**

- V1-G**  
4-pin, M12 female field-attachable connector
- V1-W**  
4-pin, M12 female field-attachable connector
- V1-G-2M-PUR**  
Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR**  
Cable socket, M12, 4-pin, PUR cable
- MHW 01**  
Modular mounting bracket
- MH 02-L**

**Dimensions**



**Technical Data**

General specifications		
Switching element function		PNP NO
Rated operating distance	$s_n$	20 mm
Installation		flush
Output polarity		switched high
Assured operating distance	$s_a$	0 ... 16.2 mm
Reduction factor $r_{Al}$		1
Reduction factor $r_{Cu}$		1
Reduction factor $r_{304}$		1
Reduction factor $r_{Si37}$		1
Nominal ratings		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 100 Hz
Hysteresis	$H$	3 ... 15 %
Reverse polarity protected		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
Constant magnetic field	$B$	200 mT
Alternating magnetic field	$B$	200 mT
Operating voltage display		LED, green
Indication of the switching state		LED, yellow
Functional safety related parameters		
MTTF <sub>d</sub>		995 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Device connector M12 x 1, 4-pin
Housing material		GD-ZnAl4Cu1, coated mounting flange PA6-GF35
Sensing face		PA 6 Grivity GVN-35H
Protection degree		IP67
Mass		180 g
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
Protection class		II
Rated insulation voltage	$U_i$	60 V
Design-impulse-voltage withstand	$U_{imp}$	800 V
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval.

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