



Model Number

NRB20-L3-E2-V1

Features

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

Accessories

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

MHW 01

Modular mounting bracket

MH 02-L

Mounting aid

MH 04-2681F

Mounting aid for VariKont, +U1+ and +U9*

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_{AI}	1
Reduction factor r_{Cu}	1
Reduction factor r_{304}	1
Reduction factor r_{Si37}	1
Output type	3-wire

Nominal ratings

Operating voltage	U_B 10 ... 30 V DC
Switching frequency	f 0 ... 100 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 80 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	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	Connector plug M12 x 1, 4-pin
Housing material	GD-ZnAl4Cu1, coated
Sensing face	mounting flange PA6-GF35
Degree of protection	IP67
Mass	180 g

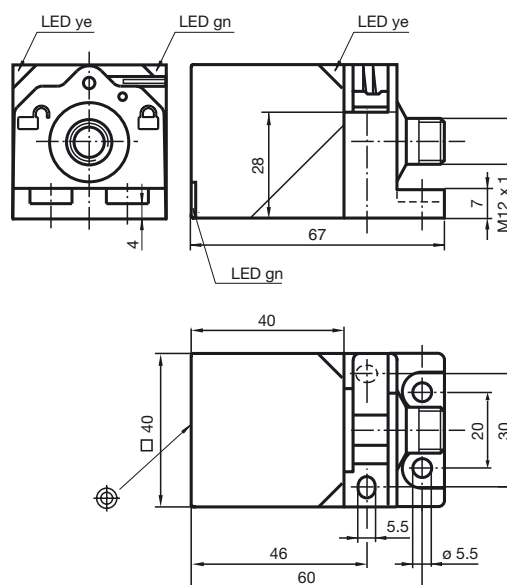
Compliance with standards and directives

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

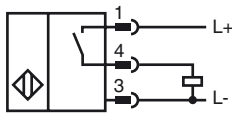
Protection class	II
Rated insulation voltage	U_i 60 V
Rated impulse withstand voltage	U_{imp} 800 V
UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Dimensions

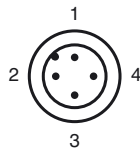




Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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