

Model Number

NRN20-30GM50-E2-C-V1

Features

- **Reduction factor = 1**
- **20 mm non-flush**
- **Magnetic field resistant**
- **Weld Immune**

Accessories

BF 30
Mounting flange, 30 mm

V1-G
Female connector, M12, 4-pin, field attachable

V1-W
Female connector, M12, 4-pin, field attachable

V1-W-2M-PUR
Female cordset, M12, 4-pin, PUR cable

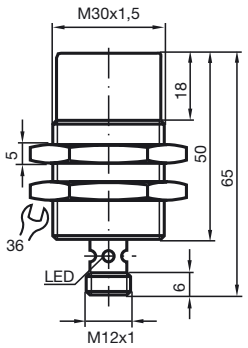
V1-G-2M-PUR
Female cordset, M12, 4-pin, PUR cable

V1-G-OR2M-POC
Female cordset, M12, 4-pin, TPE cable, welding-bead resistant

Technical Data

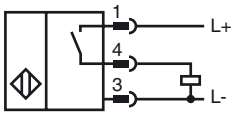
General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	20 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 16.2 mm
Reduction factor r_{Al}		1
Reduction factor r_{Cu}		1
Reduction factor r_{304}		1
Reduction factor r_{St37}		1
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 300 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 2 V
Rated insulation voltage	U_{BIS}	60 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 µA at 25 °C
No-load supply current	I_0	≤ 14 mA
Time delay before availability	t_v	≤ 15 ms
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
$MTTF_d$		1140.2 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		Brass, PTFE coated
Sensing face		PPS
Degree of protection		IP67
Mass		97 g
General information		
Scope of delivery		2 self locking nuts in scope of delivery
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, Type 1 enclosure Class 2 power source
CCC approval		CCC approval / marking not required for products rated ≤36 V

Dimensions

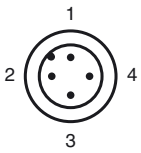


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Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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

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