



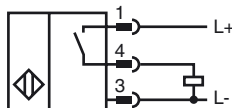
**Model Number**

NRN8-18GM50-E2-C-V1

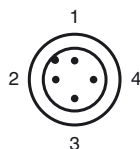
**Features**

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

**Connection**



**Pinout**



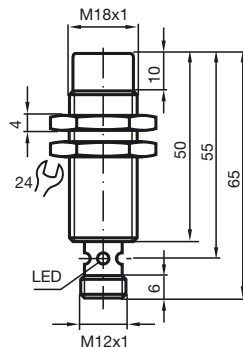
Wire colors in accordance with EN 60947-5-2

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

**Accessories**

- BF 18**  
Mounting flange, 18 mm
- V1-G**  
4-pin, M12 female field-attachable connector
- V1-W**  
4-pin, M12 female field-attachable connector
- V1-G-OR2M-POC**  
Female cordset, M12, 4-pin, TPE cable, welding-bead resistant
- V1-W-OR2M-POC**  
Female cordset, M12, 4-pin, TPE cable, welding-bead resistant

**Dimensions**



**Technical Data**

General specifications		
Switching element function		PNP NO
Rated operating distance	$s_n$	8 mm
Installation		non-flush
Output polarity		switched high
Assured operating distance	$s_a$	0 ... 6.48 mm
Reduction factor $r_{Al}$		1
Reduction factor $r_{Cu}$		1
Reduction factor $r_{304}$		1
Reduction factor $r_{317}$		1
Nominal ratings		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 600 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 15$ mA
Switching state indication		Multihole-LED, yellow
Mag. Field strength, AC fields		200 mT
Mag. Field strength, DC fields		200 mT
Functional safety related parameters		
MTTF <sub>d</sub>		1230 a
Mission Time (T <sub>M</sub> )		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		Brass, PTFE coated
Sensing face		Ryton R4
Protection degree		IP67
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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