



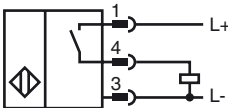
Model Number

NRN4-12GM45-E2-C-V1

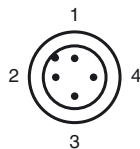
Features

- 4 mm not embeddable
- Reduction factor = 1
- Weld Immune

Connection



Pinout



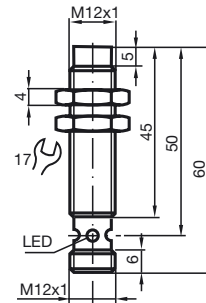
Wire colors in accordance with EN 60947-5-2

1	BN
2	WH
3	BU
4	BK

Accessories

- BF 12**
Mounting flange, 12 mm
- V1-G**
Field attachable female cordset
- V1-W**
Field attachable female cordset
- V1-G-2M-PUR**
Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR**
Cable socket, M12, 4-pin, PUR cable

Dimensions



Technical Data

General specifications

Switching element function	PNP	NO
Rated operating distance	s_n	4 mm
Installation	not embeddable	
Output polarity	switched high	
Assured operating distance	s_a	0 ... 3.24 mm
Reduction factor r_{Al}	1	
Reduction factor r_{Cu}	1	
Reduction factor r_{V2A}	1	
Reduction factor r_{Si37}	1	

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 200 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protected	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 15 mA
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Indication of the switching state	Multihole-LED, yellow	

Functional safety related parameters

MTTF _d	1520 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	brass, PTFE coated
Sensing face	PPS
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 ≤ 36 V do not bear a CCC marking because they do not require approval.