



## Model Number

NRB4-12GM50-E2-C-V1

## Features

- Reduction factor = 1
- Magnetic field resistant
- Weld Immune

## Accessories

### BF 12

Mounting flange, 12 mm

### EXG-12

Quick mounting bracket with dead stop

### V1-G

Female connector, M12, 4-pin, field attachable

### V1-W

Female connector, M12, 4-pin, field attachable

### V1-G-OR2M-POC

Female cordset, M12, 4-pin, TPE cable, welding-bead resistant

## Technical Data

### General specifications

Switching element function		PNP	NO
Rated operating distance	$s_n$	4 mm	
Installation		flush	
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 $r_{304}$		1	
Reduction factor $r_{S37}$		1	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 2000 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2$ 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 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 12$ mA
Time delay before availability	$t_v$	$\leq 20$ ms
Constant magnetic field	$B$	200 mT
Alternating magnetic field	$B$	200 mT
Switching state indicator		Multihole-LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	1393 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	Connector M12 x 1, 4-pin
Housing material	Brass, PTFE coated
Sensing face	PPS
Degree of protection	IP67
Mass	18 g

### General information

Scope of delivery	2 self locking nuts in scope of delivery
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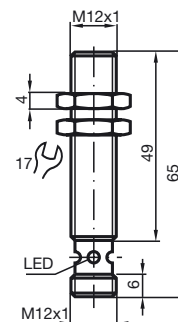
### Compliance with standards and directives

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

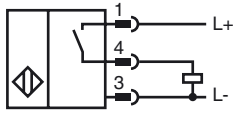
### Approvals and certificates

Protection class	II
Rated insulation voltage	$U_i$ 60 V
Rated impulse withstand voltage	$U_{imp}$ 800 V
UL approval	cULus Listed, General Purpose Class 2 power source
CSA approval	cCSAus Listed, General Purpose Class 2 power source
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

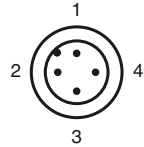
## Dimensions



**Electrical Connection**



**Pinout**



Wire colors in accordance with EN 60947-5-2

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