



## Model Number

**NBB4-12GM50-E2-V1**

## Features

- 4 mm flush
- Increased operating distance
- Extended temperature range

## 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-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## Technical Data

### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm ( -25 ... 70 °C (-13 ... 158 °F) ) 0 ... 3.04 mm ( -40 ... -25 °C (-40 ... -13 °F) )
Reduction factor $r_{Al}$		0.39
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.75
Reduction factor $r_{Brass}$		0.49
Output type		3-wire

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 800 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
Time delay before availability	$t_v$	$\leq 5$ ms
Switching state indicator		Multihole-LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	1820 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-40 ... 70 °C (-40 ... 158 °F)
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### Mechanical specifications

Connection type	Connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP67

### General information

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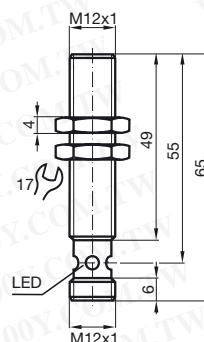
### Compliance with standards and directives

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

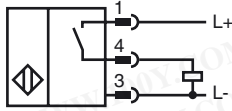
### Approvals and certificates

EAC conformity	TR CU 020/2011
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

## Dimensions

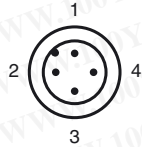


Electrical Connection



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Pinout



Wire colors in accordance with EN 60947-5-2

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