



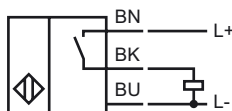
### Model Number

NBB4-12GM30-E2

### Features

- 4 mm embeddable
- Increased operating distance

### Connection



### Accessories

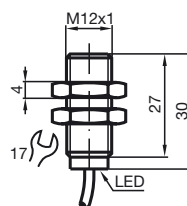
#### BF 12

Mounting flange, 12 mm

#### EXG-12

Quick mounting bracket with dead stop

### Dimensions



### Technical Data

#### General specifications

Switching element function		PNP	NO
Rated operating distance	$s_n$	4 mm	
Installation		embeddable	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 3.24 mm	
Reduction factor $r_{Al}$		0.45	
Reduction factor $r_{Cu}$		0.35	
Reduction factor $r_{V2A}$		0.7	

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 1000 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 ... 150 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 μA
No-load supply current	$I_0$	≤ 15 mA
Indication of the switching state		Multihole-LED, yellow

#### Functional safety related parameters

MTTF <sub>d</sub>	1770 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

#### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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#### Mechanical specifications

Connection type	cable PVC, 2 m
Core cross-section	0.14 mm <sup>2</sup>
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	30 g

#### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

#### Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose