



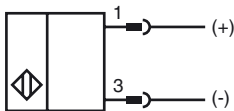
## Model Number

NBB8-18GM60-B3-V1

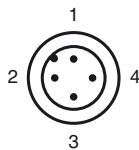
## Features

- Basic series
- 8 mm embeddable
- Cylindrical
- NO/NC selectable
- On/Off delay (disconnectable)

## Connection



## Pinout

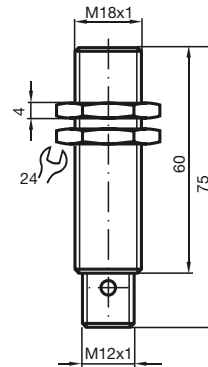


## Accessories

### EXG-18

Quick mounting bracket with dead stop

## Dimensions



## Technical Data

### General specifications

Switching element function		NO/NC programmable
Rated operating distance	$s_n$	8 mm
Installation		embeddable
Output polarity		AS-Interface
Assured operating distance	$s_a$	0 ... 6.48 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.4
Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.5
Slave type		Standard slave
AS-Interface specification		V2.1
Required master specification		≥ V2.0

### Nominal ratings

Operating voltage	$U_B$	26.5 ... 31.9 V via AS-i bus system
Switching frequency	$f$	0 ... 200 Hz
Hysteresis	$H$	1 ... 15 typ. 5 %
Reverse polarity protected		reverse polarity protected
No-load supply current	$I_0$	≤ 25 mA
Indication of the switching state		dual-LED, yellow
Fault indication		dual-LED, red

### Functional safety related parameters

MTTF <sub>d</sub>	926 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	connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67

### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 50295:1999

### Approvals and certificates

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.

**Programming Instructions**

Adress 00    preset, alterable  
                   via Busmaster  
                   or programming units  
 IO-Code    1  
 ID-Code    1

**Data bit**

Bit	Function
D0	Switching state
D1	not used
D2	not used
D3	not used

**Parameter bit**

Bit	Function
P0	ON / Off delay activated* / deactivated
P1	Switching element function NO* / NC
P2	not used
P3	not used

\*Standard setting