



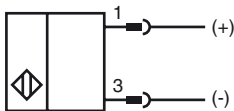
Model Number

NBB8-18GM60-B3-V1

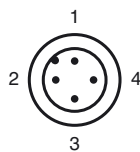
Features

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

Connection



Pinout

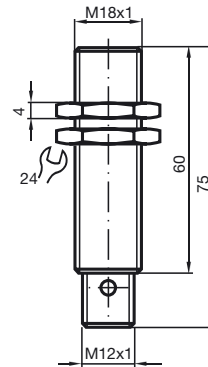


Accessories

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		\geq 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	\leq 25 mA
Indication of the switching state		dual-LED, yellow
Fault indication		dual-LED, red

Functional safety related parameters

MTTF _d	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 \leq 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

Release date: 2012-04-10 15:22 Date of issue: 2012-04-10 226335_eng.xml