



Model Number

NBB15-30GM50-EI-V1-M1

Features

- 15 mm flush
- Extended temperature range
-40 ... +85 °C
- Digital current output
- E1-Type approval

Accessories

BF 30

Mounting flange, 30 mm

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

Technical Data

General specifications

Output type	Digital current output
Rated operating distance	s_n 15 mm
Installation	flush
Output polarity	DC
Assured operating distance	s_a 0 ... 12.15 mm
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 45 mm x 45 mm x 1 mm
Reduction factor r_{Al}	0.5
Reduction factor r_{Cu}	0.4
Reduction factor r_{304}	0.7
Reduction factor r_{Brass}	0.5
Output type	3-wire

Nominal ratings

Operating voltage	U_B 9 ... 30 V DC
Switching frequency	f 0 ... 700 Hz
Hysteresis	H 2 ... 15 %
Reverse polarity protection	reverse polarity protected
Short-circuit protection	yes
Temperature drift	≤ 10 %
Time delay before availability	t_v ≤ 5 ms
Load resistor	100 ... 250 Ohm
Switching state indicator	LED, yellow

Functional safety related parameters

MTTF _d	1556 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Digital output

Output type	object detected: 10 mA ± 1 mA object not detected: 5 mA ± 1 mA
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Ambient conditions

Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	Connector plug M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP68 / IP69K
Mass	140 g

General information

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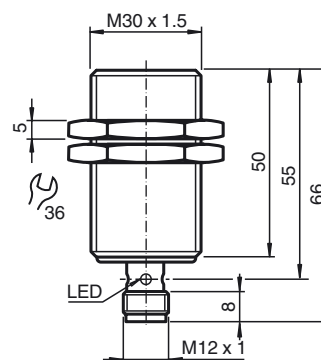
Compliance with standards and directives

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

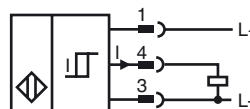
Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
E1 Type approval	10R-04

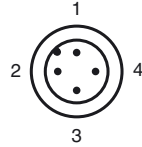
Dimensions



Electrical Connection



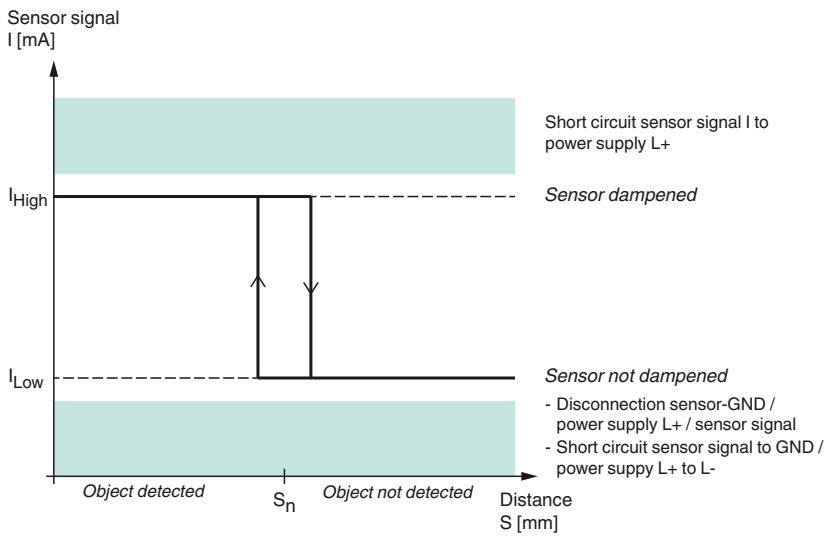
Pinout



Wire colors in accordance with EN 60947-5-2

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

Characteristic Curves



Release date: 2020-01-27 10:33 Date of issue: 2020-01-27 283416-0002_eng.xml