



Model Number

NBN20-30GM50-EI

Features

- 20 mm non-flush
- Extended temperature range
-40 ... +85 °C
- Digital current output

Technical Data

General specifications

Output type		Digital current output
Rated operating distance	s_n	20 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 16.2 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.45
Output type		3-wire

Nominal ratings

Operating voltage	U_B	9 ... 30 V DC
Switching frequency	f	0 ... 1000 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	1672 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	cable PUR, 2 m
Core cross-section	3 x 0.34 mm ²
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP68 / IP69K

General information

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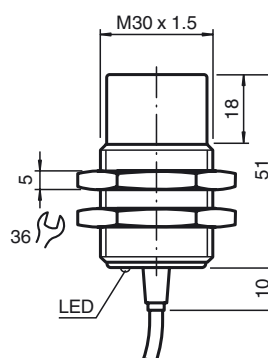
Compliance with standards and directives

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

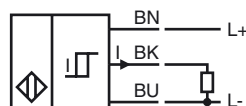
Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
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Dimensions



Electrical Connection



Characteristic Curves

