



Model Number

NBB1-3M22-E2

Features

- 1 mm flush
- Miniature design

Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	1 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 0.81 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.29
Reduction factor r_{304}		0.76
Reduction factor r_{Brass}		0.46
Output type		3-wire

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 700 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.1 mA typ. at 25 °C
No-load supply current	I_0	≤ 10 mA
Switching state indicator		LED, yellow

Functional safety related parameters

MTTF _d	1340 a
Mission Time (T _M)	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 PUR, 2 m
Core cross-section	0.055 mm ²
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PC
Degree of protection	IP67
Cable	
Cable diameter	2.6 mm \pm 0.1 mm
Bending radius	> 10 x cable diameter

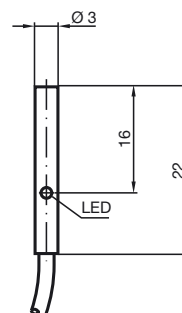
Compliance with standards and directives

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
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Dimensions



Electrical Connection

