



Model Number

NBB1-3M22-E2-0,3M-V3

Features

- 1 mm flush
- Miniature design
- Cable with M8 plug

Technical Data

General specifications

Switching element function		PNP	NO
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	

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 connector M8 x 1, 3-pin with PVC cable 300 mm
Core cross-section	0.055 mm ²
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PC
Degree of protection	IP67

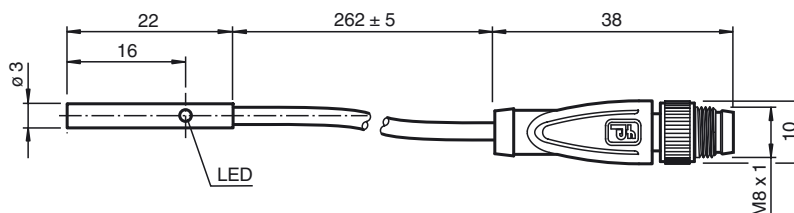
Compliance with standards and directives

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

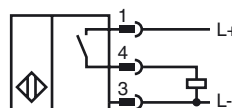
Approvals and certificates

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

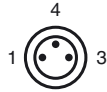
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

