



Model Number

NBB8-F33-E3-0,2M-V1

Features

- 8 mm flush
- 3-wire DC

Accessories

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

Switching function		Normally closed (NC)
Output type		PNP
Rated operating distance	s_n	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 6.48 mm
Reduction factor r_{AI}		0.3
Reduction factor r_{CU}		0.2
Reduction factor r_{304}		0.6
Output type		3-wire

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 350 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 ... 200 mA
Off-state current	I_r	0 ... 0.1 mA
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 50 ms
Switching state indicator		LED yellow

Functional safety related parameters

MTTF _d	1140 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-35 ... 70 °C (-31 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	fixed cable with plug
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67
Connector	
Threading	M12 x 1
Number of pins	4
Cable	
Material	PVC
Number of cores	3
Core cross-section	0.34 mm ²
Length	L
Note	Tightening torque: 5 Nm

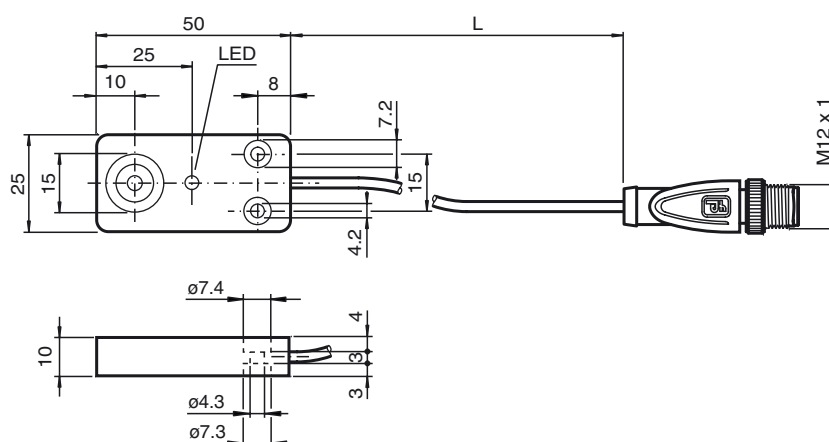
Compliance with standards and directives

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

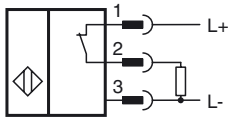
Approvals and certificates

UL approval	cULus Listed, General Purpose
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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)