



Model Number

NBB3-V3-E1-V3

Features

- 3 mm flush
- 3-wire DC

Accessories

V3-WM

Female connector, M8, 3-pin, field attachable

V3-GM

Female connector, M8, 3-pin, field attachable

V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

V3-GM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

Technical Data

General specifications

Switching element function		NPN	NC
Rated operating distance	s_n	3 mm	
Installation		flush	
Output polarity		DC	
Assured operating distance	s_a	0 ... 2.43 mm	
Reduction factor r_{Al}		0.35	
Reduction factor r_{Cu}		0.33	
Reduction factor r_{304}		0.82	
Reduction factor r_{Brass}		0.5	

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1000 Hz
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 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 15 mA
Switching state indicator		LED, yellow

Functional safety related parameters

MTTF _d	2300 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
---------------------	--------------------------------

Mechanical specifications

Connection type	Connector M8 x 1, 3-pin
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

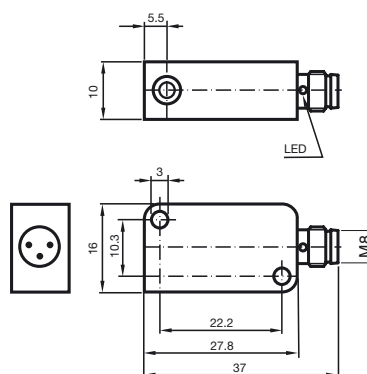
Compliance with standards and directives

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

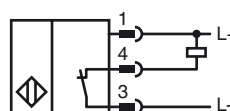
Approvals and certificates

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)