



Model Number

NBB1,5-F41-E3-V3

Features

- Basic series
- 1.5 mm flush
- 3-wire DC
- Metal housing

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	PNP	NC
Rated operating distance	s_n	1.5 mm
Installation		flush
Output polarity		switched high
Assured operating distance	s_a	0 ... 1.215 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.75

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1500 Hz
Hysteresis	H	typ. 3 %
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.
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 20 ms
Switching state indicator		LED, yellow

Functional safety related parameters

MTTF _d	1750 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	Connector M8 x 1, 3-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	13.5 g

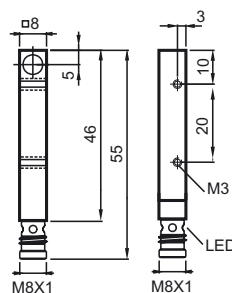
Compliance with standards and directives

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

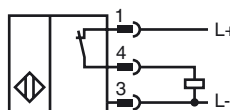
Approvals and certificates

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)