



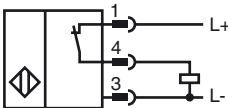
### Model Number

NBB2-F41-E3-V3

### Features

- 2 mm embeddable
- 3-wire DC
- Metal housing

### Connection



### Pinout



Wire colors in accordance with EN 60947-5-2

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

### Accessories

#### V3-GM

Female connector, M8, 3-pin, field attachable

#### V3-WM

Female connector, M8, 3-pin, field attachable

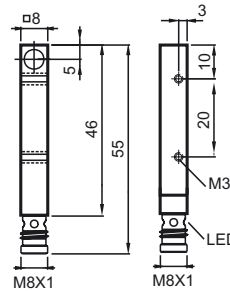
#### V3-GM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

#### V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

### Dimensions



### Technical Data

#### General specifications

Switching element function		PNP	NC
Rated operating distance	$s_n$	2 mm	
Installation		embeddable	
Output polarity		switched high	
Assured operating distance	$s_a$	0 ... 1.62 mm	
Reduction factor $r_{A1}$		0.45	
Reduction factor $r_{Cu}$		0.35	
Reduction factor $r_{303}$		0.75	

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC	
Switching frequency	$f$	0 ... 1500 Hz	
Hysteresis	$H$	typ. 3 %	
Reverse polarity protected		reverse polarity protected	
Short-circuit protection		pulsing	
Voltage drop	$U_d$	$\leq 3$ V	
Operating current	$I_L$	0 ... 100 mA	
Off-state current	$I_r$	0 ... 0.5 mA typ.	
No-load supply current	$I_0$	$\leq 15$ mA	
Indication of the switching state		LED, yellow	

#### Ambient conditions

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

Connection type	Device 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	Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval.