



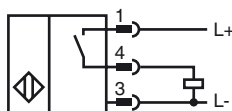
**Model Number**

NBB1-4GM22-E2-0,3M-V3

**Features**

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

**Connection**



**Pinout**



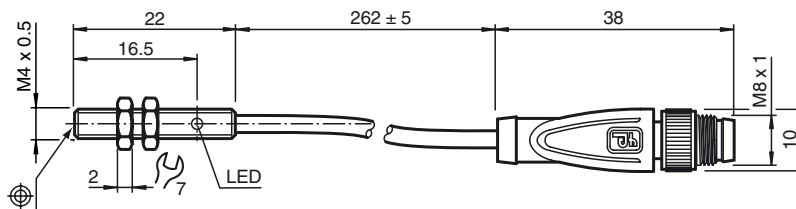
Wire colors in accordance with EN 60947-5-2

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

**Accessories**

- BF 4  
Mounting flange, 4 mm

**Dimensions**



**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 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 ... 0.1 mA typ. at 25 °C
No-load supply current	$I_0$	$\leq 10$ mA
Indication of the switching state		LED, yellow

**Functional safety related parameters**

MTTF <sub>d</sub>	1340 a
Mission Time (T <sub>M</sub> )	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 <sup>2</sup>
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PC
Protection degree	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	Products with a maximum operating voltage of $\leq 36$ V do not bear a CCC marking because they do not require approval.

Release date: 2012-05-22 11:15 Date of issue: 2012-05-22 224132\_eng.xml