



### Model Number

NBB2-8GH20-E2-V3

### Features

- Increased operating distance
- Short version
- Materials used compliant with FDA
- Housing with stainless steel (V4A; 1.4435)

### Accessories

#### BF 8

Mounting flange, 8 mm

V3-GMV4A-5M-PUR

V3-WMV4A-5M-PUR

## Technical Data

### General specifications

Switching element function		PNP	NO
Rated operating distance	$s_n$	2 mm	
Installation		flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 1.62 mm	
Reduction factor $r_{Al}$		0.25	
Reduction factor $r_{Cu}$		0.2	
Reduction factor $r_{304}$		0.63	
Reduction factor $r_{Brass}$		0.31	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 1500 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		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. 10 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 15$ mA
Switching state indicator		Multihole-LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	2750 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	M8 x 1 connector, 3-pin
Housing material	Stainless steel 1.4435 / AISI 316L
Sensing face	LCP, (conforms with FDA)
Degree of protection	IP67
Mass	10 g

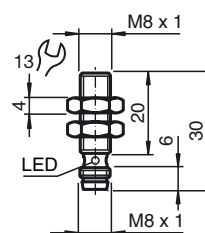
### Compliance with standards and directives

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

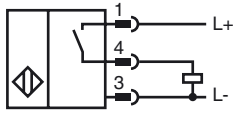
### Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

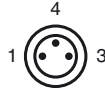
## Dimensions



**Electrical Connection**



**Pinout**



Wire colors in accordance with EN 60947-5-2

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