



### Model Number

**NBB2-8GS40-E1-V3**

### Features

- 2 mm flush
- Stainless steel version
- Extended temperature range

### Accessories

#### BF 8

Mounting flange, 8 mm

#### EXG-08

Quick mounting bracket with dead stop

#### V3-GM

Female connector, M8, 3-pin, field attachable

#### V3-WM

Female connector, M8, 3-pin, field attachable

## Technical Data

### General specifications

Switching element function		NPN	NC
Rated operating distance	$s_n$	2 mm	
Installation		flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 1.62 mm	
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 8 mm x 8 mm x 1 mm	
Reduction factor $r_{Al}$		0.38	
Reduction factor $r_{Cu}$		0.2	
Reduction factor $r_{304}$		0.8	
Reduction factor $r_{Brass}$		0.45	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 600 Hz
Hysteresis	$H$	0.06 ... 0.44 mm
Reverse polarity protection		yes
Short-circuit protection		yes
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	$U_d$	$\leq 2.5$ V
Repeat accuracy	$R$	0.1 mm
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0.01 mA
No-load supply current	$I_0$	$\leq 1$ mA
Time delay before availability	$t_v$	$\leq 40$ ms
Switching state indicator		Multihole-LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	2480 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

### Mechanical specifications

Connection type	connector (M8 x 1), 3-pin
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP67
Mass	7 g

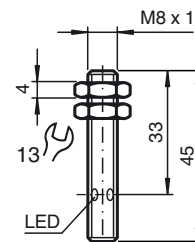
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

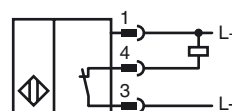
### Approvals and certificates

CCC approval	CCC approval / marking not required for products rated $\leq 36$ V
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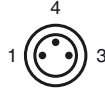
## Dimensions



## Electrical Connection



## Pinout



Wire colors in accordance with EN 60947-5-2

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