



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	≤ 2.5 V
Repeat accuracy		0.1 mm
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0.01 mA
No-load supply current	I_0	≤ 1 mA
Time delay before availability	t_v	≤ 40 ms
Switching state indicator		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	2480 a
Mission Time (T_M)	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

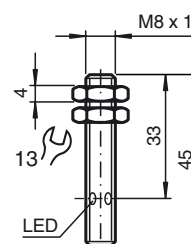
Compliance with standards and directives

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

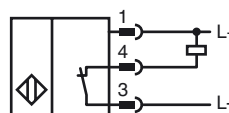
Approvals and certificates

CCC approval	CCC approval / marking not required for products rated ≤ 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)