



Model Number

NBB2-6,5S20-E2-V3

Features

- 2 mm flush
- Increased operating distance
- Extended temperature range
-40 ... +85 °C

Accessories

BF 6,5

Mounting flange, 6.5 mm

V3-WM

Female connector, M8, 3-pin, field attachable

V3-GM

Female connector, M8, 3-pin, field attachable

V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
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) 6.5 mm x 6.5 mm x 1 mm
Reduction factor r_{Al}		0.15
Reduction factor r_{Cu}		0.1
Reduction factor r_{304}		0.5
Reduction factor r_{Brass}		0.2
Output type		3-wire

Nominal ratings

Operating voltage	U_B	5 ... 30 V
Switching frequency	f	0 ... 6000 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.2 mA
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 100 ms
Switching state indicator		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	960 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

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

Mechanical specifications

Connection type	Connector plug M8 x 1, 3-pin
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	LCP
Degree of protection	IP67

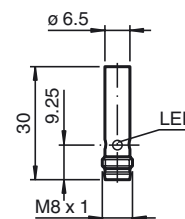
Compliance with standards and directives

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

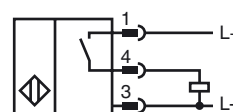
Approvals and certificates

UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

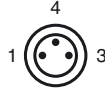
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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