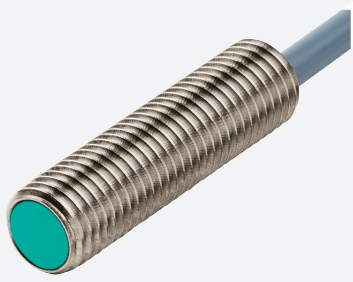


Inductive sensor

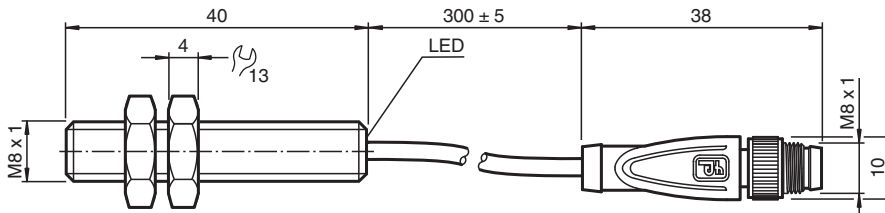
NBB2-8GM40-E2-0,3M-V3



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



Dimensions



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) 8 mm x 8 mm x 1 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.75
Reduction factor r_{Brass}		0.45
Output type		3-wire

Nominal ratings

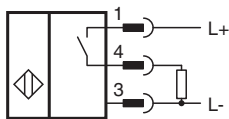
Operating voltage	U_B	5 ... 30 V
Switching frequency	f	0 ... 6000 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.2 mA
No-load supply current	I_0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

Release date: 2025-05-20 Date of issue: 2025-05-20 Filename: 304615-0057_eng.pdf

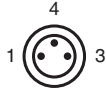
Technical Data

Switching state indicator	LED, yellow
Functional safety related parameters	
MTTF _d	960 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %
Compliance with standards and directives	
Standard conformity	
Standards	EN IEC 60947-5-2
Approvals and certificates	
UL approval	cULus Listed, General Purpose, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V
Ambient conditions	
Ambient temperature	-40 ... 85 °C (-40 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications	
Connection type	fixed cable with plug
Housing material	brass, nickel-plated
Sensing face	LCP
Degree of protection	IP65 / IP66 / IP67
Connector	
Threading	M8 x 1
Number of pins	3
Cable	
Cable diameter	4.2 mm ± 0.15 mm
Bending radius	> 15 x cable diameter
Material	PVC
Color	black
Number of cores	3
Core cross section	0.25 mm ²
Length	L 0.3 m
Dimensions	
Length	40 mm
Diameter	8 mm
General information	
Scope of delivery	2 hex nuts included

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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