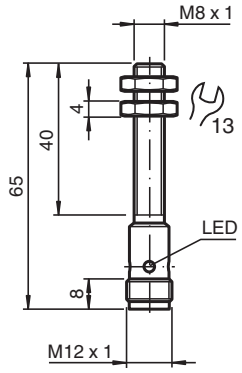


Inductive sensor

NBB2-8GM40-E2-V1

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

Dimensions



Technical Data

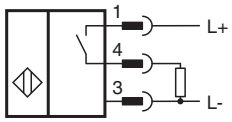
General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 8 mm x 8 mm x 1 mm
Reduction factor 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

Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 304615-0058_eng.pdf

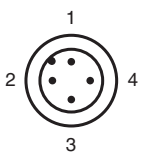
Technical Data

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 %
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, 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		Connector plug M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		LCP
Degree of protection		IP67
Mass		20 g
General information		
Scope of delivery		2 hex nuts included

Connection



Connection Assignment



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Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Accessories

	**BF 8**	Mounting flange, 8 mm
	**V1-G-2M-PUR**	Female cordset, M12, 4-pin, PUR cable
	**V1-W-2M-PUR**	Female cordset, M12, 4-pin, PUR cable
	**EXG-08**	Quick mounting bracket with dead stop

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