



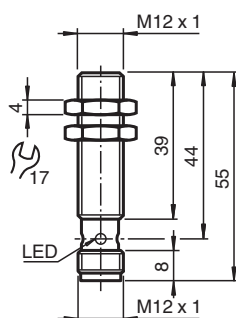
Inductive sensor

NBB2-12GS40-Z4L-V1-3G-3D

- 2 mm flush
- 2-wire DC sensor with minimum off-state current
- Switching status indicator, yellow LED
- ATEX-approval for zone 2 and zone 22
- Stainless steel housing



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		Two-wire with minimum off-state current
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actual operating distance	s_r	1.8 ... 2.2 mm typ.
Reduction factor r_{AI}		0.3
Reduction factor r_{Cu}		0.17
Reduction factor r_{304}		0.7
Output type		2-wire

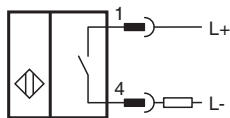
Nominal ratings

Operating voltage	U_B	4 ... 30 V
Switching frequency	f	0 ... 700 Hz
Hysteresis	H	1 ... 10 typ. 5 %

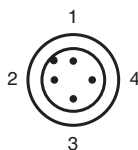
Technical Data

Reverse polarity protection		yes
Short-circuit protection		pulsing
Voltage drop	U_d	$\leq 4 \text{ V}$
Operating current	I_L	2 ... 30 mA
Lowest operating current	I_m	2 mA
Off-state current	I_r	$\leq 200 \mu\text{A}$
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1558 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 $\leq 36 \text{ V}$
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67
Mass		23 g
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Accessories

	BF 12	Mounting flange, 12 mm
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable

Release date: 2020-05-18 Date of issue: 2020-05-18 Filename: 323676-0005_eng.pdf