

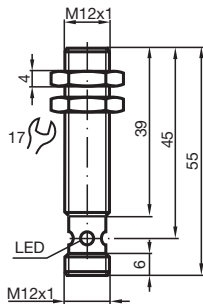
Inductive sensor NBB2-12GM40-Z3-V1



- 2 mm flush
- 2-wire DC



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		Two-wire
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_{Al}		0.18
Reduction factor r_{Cu}		0.12
Reduction factor r_{304}		0.67

Nominal ratings

Operating voltage	U_B	5 ... 60 V
-------------------	-------	------------

Technical Data

Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		pulsing
Voltage drop	U _d	≤ 5 V
Operating current	I _L	2 ... 100 mA
Lowest operating current	I _m	2 mA
Off-state current	I _r	0 ... 0.5 mA typ.
Switching state indicator		Multihole-LED, yellow

Functional safety related parameters

MTTF _d		2250 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %

Compliance with standards and directives

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

Approvals and certificates

UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)

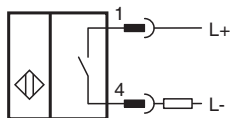
Ambient conditions

Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
---------------------	--	--------------------------------

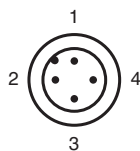
Mechanical specifications

Connection type		Connector M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67

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-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	EXG-12	Quick mounting bracket with dead stop

Release date: 2020-03-20 Date of issue: 2020-03-30 Filename: 089212_eng.pdf