

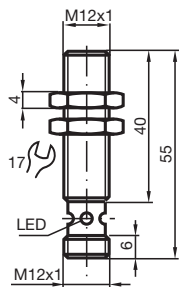
Inductive sensor
NCB4-12GM40-N0-V1



- 4 mm flush
- Usable up to SIL 2 acc. to IEC 61508



Dimensions



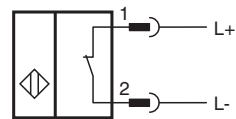
Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s _n	4 mm
Installation		flush
Assured operating distance	s _a	0 ... 3.24 mm
Actual operating distance	s _r	3.6 ... 4.4 mm typ.
Reduction factor r _{Al}		0.41
Reduction factor r _{Cu}		0.39
Reduction factor r ₃₀₄		0.78
Output type		2-wire
Nominal ratings		
Nominal voltage	U _o	8.2 V (R _i approx. 1 kΩ)

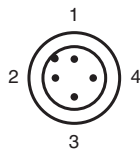
Technical Data

Switching frequency	f	0 ... 1500 Hz
Hysteresis	H	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Suitable for 2:1 technology		yes , Reverse polarity protection diode not required
Current consumption		
Measuring plate not detected		min. 2.2 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		3010 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility		NE 21:2007
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		
EAC conformity		TR CU 012/2011
FM approval		
Control drawing		116-0165
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Core cross-section		-
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Equipment protection level Dc (tc)		
Special conditions		
Maximum permissible ambient temperature T _{Umax}		Values can be obtained from the following list, depending on the max. operating voltage U _{Bmax} and the minimum series resistance R _v .
General information		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-6

1	BN	(brown)
2	BU	(blue)

Accessories

	BF 12	Mounting flange, 12 mm
	V1-G-N-2M-PUR	Female cordset, M12, 2-pin, NAMUR, PUR cable
	V1-W-N-2M-PUR	Female cordset, M12, 2-pin, NAMUR, PUR cable
	KCD2-SR-Ex1.LB	24 V DC
	KCD2-E2L	Sensor output interface terminal with lead breakage monitoring

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