

Inductive sensor

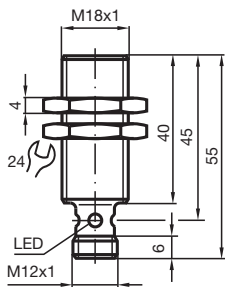
NCB5-18GM40-N0-V1



- 5 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	5 mm
Installation		flush
Assured operating distance	s_a	0 ... 4.05 mm
Actual operating distance	s_r	4.5 ... 5.5 mm typ. 5 mm
Reduction factor r_{AI}		0.35
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.74
Output type		2-wire

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 400 Hz

Technical Data

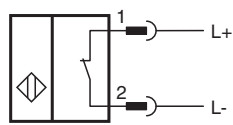
Hysteresis	H	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Current consumption		
Measuring plate not detected		min. 3 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
MTTF _d		1880 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		
IECEX approval		
Equipment protection level Ga		IECEX PTB 11.0037X
Equipment protection level Gb		IECEX PTB 11.0037X
Equipment protection level Da		IECEX PTB 11.0037X
Equipment protection level Mb		IECEX PTB 11.0037X
ATEX approval		
Equipment protection level Ga		PTB 00 ATEX 2048 X
Equipment protection level Gb		PTB 00 ATEX 2048 X
Equipment protection level Da		PTB 00 ATEX 2048 X
EAC conformity		TR CU 012/2011
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
CCC approval		
Hazardous Location		2020322315002255
NEPSI approval		
NEPSI certificate		GYJ16.1393X
TIIS approval		on request
ANZEx		18.3018X
KCC approval		
Hazardous Location		09-AV4BO-0226
Marine approval		DNVGL TAA00001A5
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Connector		

Release date: 2022-06-20 Date of issue: 2022-06-20 Filename: 70133057_eng.pdf

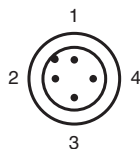
Technical Data

Threading	M12 x 1
Number of pins	4
General information	
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

	KCD2-E2L	Sensor output interface terminal with lead breakage monitoring
	V1-G-N-2M-PUR	Female cordset single-ended M12 straight A-coded, 2-pin, PUR cable blue, NAMUR
	V1-W-N-2M-PUR	Female cordset single-ended M12 angled A-coded, 2-pin, PUR cable blue, NAMUR
	CPZ18B03	Mounting Bracket with swivel nut
	BF 18-F	Plastic mounting adapter, 18 mm
	BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
	BF 18	Mounting flange, 18 mm