

Inductive sensor

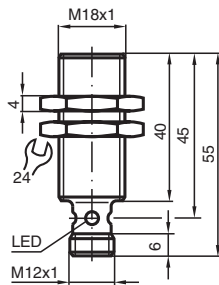
NCB5-18GM40-N0-V1



- 5 mm flush
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output
- Stainless steel housing
- Polarity reversal protected



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
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

Release date: 2025-09-15 Date of issue: 2025-09-15 Filename: 70133057_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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Technical Data

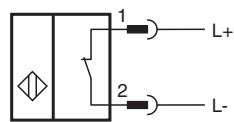
Safety Integrity Level (SIL)	SIL 2
MTTF _d	1880 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %
Compliance with standards and directives	
Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
Standards	EN IEC 60947-5-2
Approvals and certificates	
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
UL approval	cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 8.2 V DC
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0452
CCC approval	
Hazardous Location	2020322315002255
CML 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	
Threading	M12 x 1
Number of pins	4
Dimensions	
Length	40 mm
Diameter	18 mm
General information	
Scope of delivery	2 self locking nuts in scope of delivery
Use in the hazardous area	see instruction manuals

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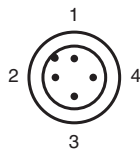
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Connection Assignment



Connection Assignment



Wire colors in accordance with EN 60947-5-6

1		BN	(brown)
2		BU	(blue)