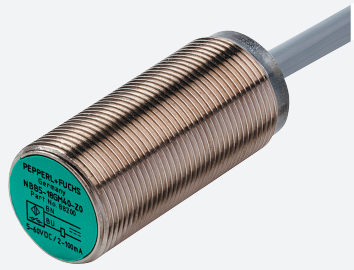
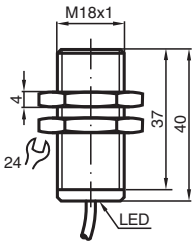
Inductive sensor

NCB8-18GM40-N0-OG



- 8 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	8 mm
Installation		flush
Assured operating distance	s_a	0 ... 6.48 mm
Actual operating distance	s_r	7.2 ... 8.8 mm typ. 8 mm
Reduction factor r_{Al}		0.39
Reduction factor r_{Cu}		0.36
Reduction factor r_{304}		0.71
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8.2 V (R_i approx. 1 kΩ)
Switching frequency	f	0 ... 1500 Hz
Hysteresis	H	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes

Release date: 2024-05-28 Date of issue: 2024-06-01 Filename: 70133265_eng.pdf

Technical Data

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		all direction LED, yellow
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
$MTTF_d$		2660 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		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
CML approval		on request
ANZEx		18.3018X
Ambient conditions		
Ambient temperature		-25 ... 80 °C (-13 ... 176 °F)
Storage temperature		-40 ... 80 °C (-40 ... 176 °F)
Mechanical specifications		
Connection type		cable PUR (halogen-free) , 2 m blue , Oil resistant , Flame-retardant as per IEC 60332-1 Mud-resistant according to IEC61892-4, appendix D Flexible at temperatures as low as -40 °C
Core cross section		2x 1 mm^2 , black
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Cable		
Bending radius		> 5 x cable diameter
Material		PUR
Length	L	2 m
Dimensions		
Length		40 mm
Diameter		18 mm
General information		
Use in the hazardous area		see instruction manuals

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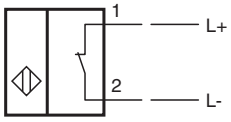
Connection



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