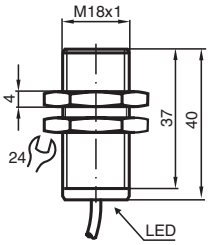


Inductive sensor

NCB5-18GM40-N0

- 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_{Al}		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 kΩ)
Switching frequency	f	0 ... 400 Hz

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Technical Data

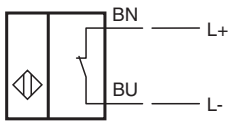
Hysteresis	H	1 ... 15 % typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Current consumption		
Measuring plate not detected		min. 3 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		all direction LED, yellow
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
$MTTF_d$		2040 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 Dc (tc)		IECEx TUR 21.0018X
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
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
CCC approval		
Hazardous Location		2020322315002255 2024322315005860
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		cable
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Cable		
Wire end ferrules		yes
Cable diameter		6 mm ± 0.2 mm

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Technical Data

Bending radius		> 10 x cable diameter
Material		PVC
Color		blue
Number of cores		2
Core cross section		0.75 mm²
Length	L	2 m
Dimensions		
Length		40 mm
Diameter		18 mm
General information		
Use in the hazardous area		see instruction manuals

Connection



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