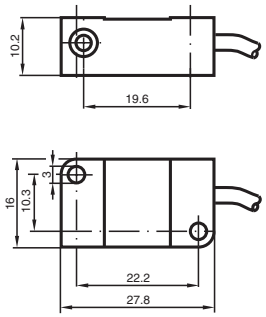


Inductive sensor

NJ2-V3-N

- 2 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	2 mm
Installation		flush
Assured operating distance	s_a	0 ... 1.62 mm
Reduction factor r_{Al}		0.25
Reduction factor r_{Cu}		0.2
Reduction factor r_{304}		0.7
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8.2 V (R_i approx. 1 kΩ)
Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	0.01 ... 0.1 mm
Suitable for 2:1 technology		yes , Reverse polarity protection diode not required
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
$MTTF_d$		11775 a
Mission Time (T_M)		20 a

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Technical Data

Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEx approval		
Equipment protection level Ga		IECEx PTB 11.0021X
Equipment protection level Gb		IECEx PTB 11.0021X
Equipment protection level Da		IECEx PTB 11.0021X
Equipment protection level Mb		IECEx PTB 11.0021X
ATEX approval		
Equipment protection level Ga		PTB 00 ATEX 2032 X
Equipment protection level Gb		PTB 00 ATEX 2032 X
Equipment protection level Da		PTB 00 ATEX 2032 X
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CCC approval		
Hazardous Location		2020322315002302
NEPSI approval		
NEPSI certificate		GYJ16.1394X
CML approval		on request
ANZEx		19.3001X
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Mechanical specifications		
Connection type		cable
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Cable diameter		2.6 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Core cross section		0.14 mm²
Length	L	130 mm
Tightening torque, fastening screws		≤ 0.4 Nm
Dimensions		
Height		10.2 mm
Width		27.8 mm
Length		16 mm
General information		
Use in the hazardous area		see instruction manuals

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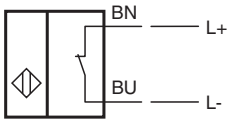
Connection



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