

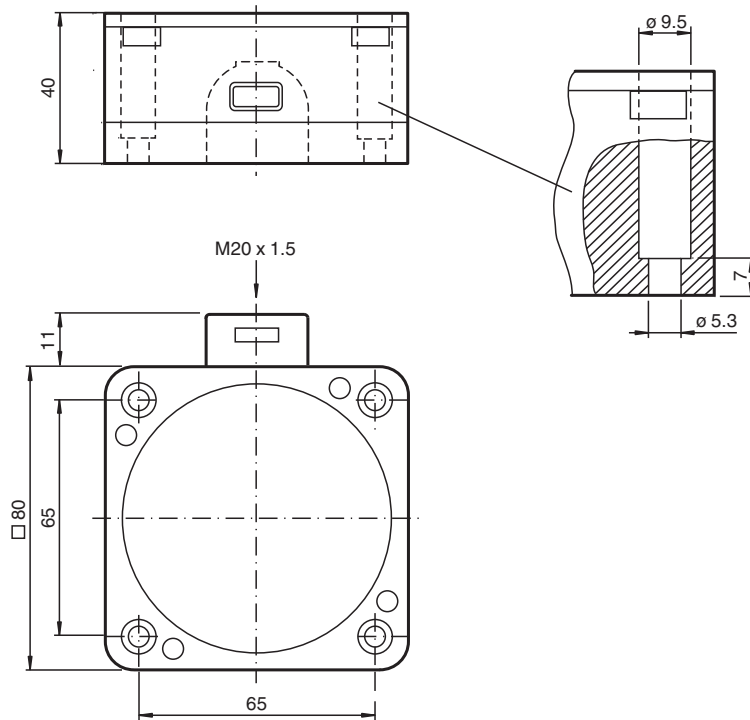


Inductive sensor NJ40-FP-SN-P1

- 40 mm non-flush
- Usable up to SIL 3 acc. to IEC 61508



Dimensions



Technical Data

General specifications

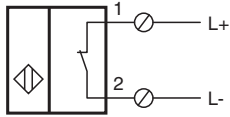
Switching function		Normally closed (NC)
Output type		NAMUR with safety function
Rated operating distance	s_n	40 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 32.4 mm
Reduction factor r_{AI}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.85

Technical Data

Safety Integrity Level (SIL)	up to SIL3 acc. to IEC 61508 Danger! In safety-related applications the sensor must be operated with a qualified fail safe interface from Pepperl+Fuchs, such as KFD2-SH-EX1. Consider the "exida Functional Safety Assessment" document which is available on www.pepperl-fuchs.com as an integral part of this product's documentation.	
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 100 Hz
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 3
MTTF _d		7560 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
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEX approval		
Equipment protection level Gb		IECEX PTB 11.0092X
Equipment protection level Da		IECEX PTB 11.0092X
Equipment protection level Mb		IECEX PTB 11.0092X
ATEX approval		
Equipment protection level Gb		PTB 00 ATEX 2049 X
Equipment protection level Da		PTB 00 ATEX 2049 X
UL approval		cULus Listed, General Purpose
CCC approval		
Hazardous Location		2020322315002308
NEPSI approval		
NEPSI certificate		GYJ16.1392X
KCC approval		
Hazardous Location		18-AV4BO-0478X
Ambient conditions		
Ambient temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		screw terminals
Core cross section		up to 2.5 mm ² , stripped insulation length: 7 mm
Connection (system side)		screw terminals, M20 x 1.5 cable gland, usable thread length 10 mm, screw-in depth max. 10 mm
Housing material		PBT
Sensing face		PBT
Degree of protection		IP68
Dimensions		
Height		40 mm
Width		80 mm
Length		80 mm
General information		
Use in the hazardous area		see instruction manuals

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Connection



Application

**Danger!**

In safety-related applications the sensor must be operated with a qualified fail safe interface from Pepperl+Fuchs, such as KFD2-SH-EX1.

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

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