

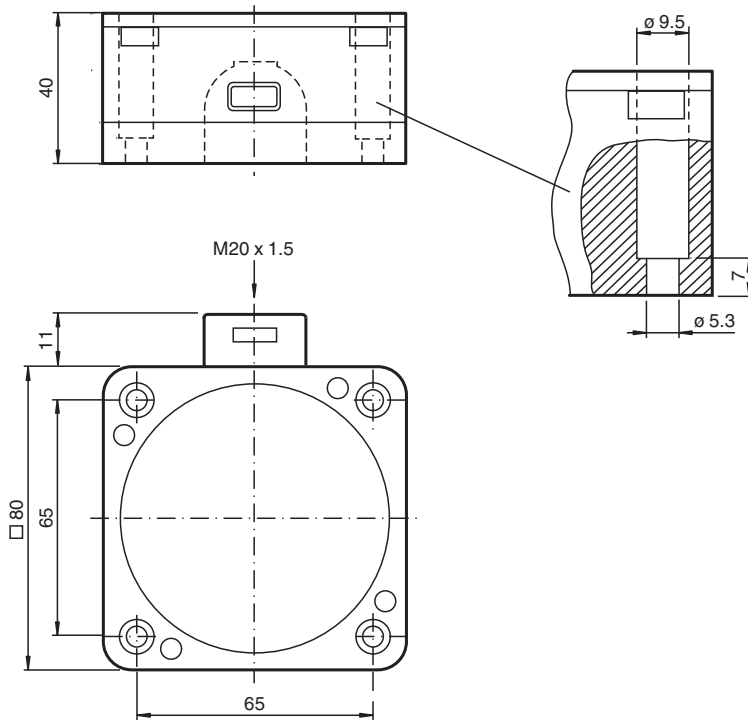


## Inductive sensor NJ40-FP-SN-P1

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



### Dimensions



### Technical Data

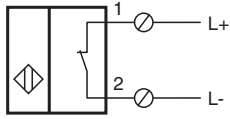
#### General specifications

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 <b>Danger!</b> 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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> as an integral part of this product's documentation.	
Output type		2-wire
<b>Nominal ratings</b>		
Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	f	0 ... 100 Hz
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA
<b>Functional safety related parameters</b>		
Safety Integrity Level (SIL)		SIL 3
MTTF <sub>d</sub>		7560 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
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
KCC approval		
Hazardous Location		18-AV4BO-0478X
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 100 °C (-40 ... 212 °F)
<b>Mechanical specifications</b>		
Connection type		screw terminals
Core cross section		up to 2.5 mm <sup>2</sup> , 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
<b>General information</b>		
Use in the hazardous area		see instruction manuals

## Connection Assignment



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## Application

**Danger!**

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