

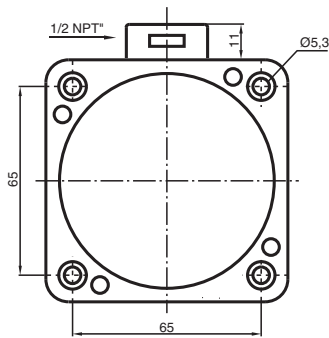
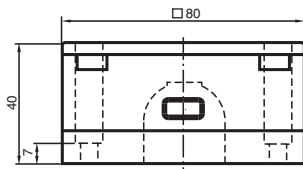
# Inductive sensor NJ50-FP-N-P4



■ Comfort series



## Dimensions



## Technical Data

### General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	$s_n$	50 mm
Installation		non-flush
Assured operating distance	$s_a$	0 ... 40.5 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.85
Output type		2-wire

### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	$f$	0 ... 100 Hz

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

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**PF** PEPPERL+FUCHS

## Technical Data

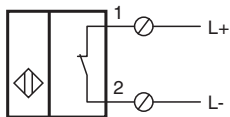
Current consumption		
Measuring plate not detected		min. 3 mA
Measuring plate detected		≤ 1 mA
<b>Compliance with standards and directives</b>		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<b>Approvals and certificates</b>		
FM approval		
Control drawing		116-0165
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		screw terminals
Information for connection		A maximum of two conductors with the same core cross section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 %
Core cross-section		up to 2.5 mm <sup>2</sup>
Minimum core cross-section		without wire end ferrule 0.5 mm <sup>2</sup> , with connector sleeves 0.34 mm <sup>2</sup>
Maximum core cross-section		without wire end ferrule 2.5 mm <sup>2</sup> , with connector sleeves 1.5 mm <sup>2</sup>
Housing material		PBT/metal
Sensing face		PBT
Degree of protection		IP67
Note		Tightening torque: 1.8 Nm (housing)
<b>Equipment protection level Ga</b>		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1G Ex ia IIC T6...T1 Ga The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ 50-FP-N...
Effective internal capacitance	C <sub>i</sub>	max. 320 nF ; a cable length of 10 m is considered.
Effective internal inductance	L <sub>i</sub>	max. 360 μH ; a cable length of 10 m is considered.
Ambient temperature		Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate. <b>Note:</b> Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.
<b>Equipment protection level Gb</b>		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1G Ex ia IIC T6...T1 Ga The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ 50-FP-N...
Effective internal capacitance	C <sub>i</sub>	max. 320 nF ; a cable length of 10 m is considered.
Effective internal inductance	L <sub>i</sub>	max. 360 μH ; a cable length of 10 m is considered.

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**Technical Data**

Maximum permissible ambient temperature	$T_{amb}$	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate.
<b>Equipment protection level Da</b>		
CE marking		[*PD-Z02585A*]
ATEX marking		Ⓔ II 1D Ex ia III C T135°C Da The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ 50-FP-N...
Effective internal capacitance	$C_i$	max. 320 nF ; a cable length of 10 m is considered.
Effective internal inductance	$L_i$	max. 360 µH ; a cable length of 10 m is considered.
<b>General information</b>		
Use in the hazardous area		see instruction manuals
Category		1G; 2G; 1D

**Connection**



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