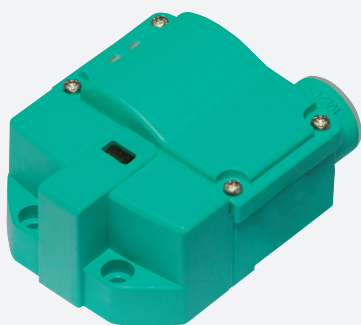


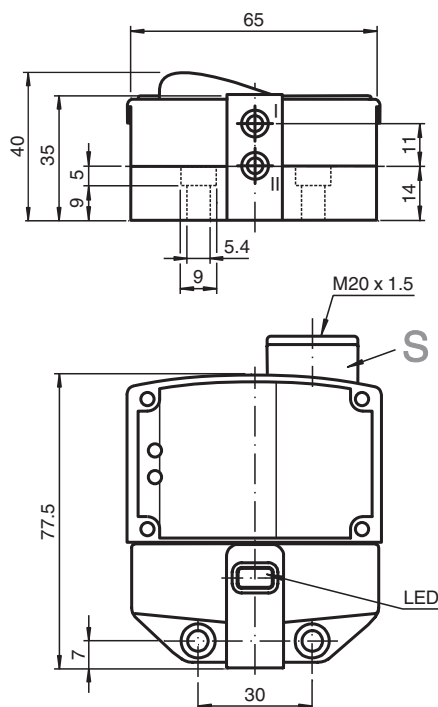


Inductive sensor NCN3-F31K-N4-S

- Direct mounting on standard actuators
- Fixed setting
- EC-Type Examination Certificate TÜV99 ATEX 1479X
- Screw terminals
- Usable up to SIL 2 acc. to IEC 61508



Dimensions



Technical Data

General specifications

Switching function	2 x normally closed (NC)	
Output type		NAMUR
Rated operating distance	s_n	3 mm
Installation		flush mountable
Assured operating distance	s_a	0 ... 2.4 mm
Actual operating distance	s_r	2.7 ... 3.3 mm typ.
Actuating element	Stainless steel 1.4305 / AISI 303 8.5 mm x 8.5 mm x 0.5 mm	
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4

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

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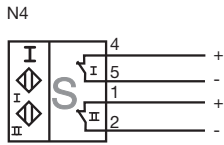
 **PEPPERL+FUCHS**

Technical Data

Reduction factor r_{304}		1
Reduction factor r_{St37}		1.3
Reduction factor r_{Brass}		0.6
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8 V
Switching frequency	f	0 ... 3 kHz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
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
Time delay before availability	t_v	≤ 1.1 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
MTTF _d		1470 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 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates		
EAC conformity		TR CU 012/2011
UL approval		cULus Listed, General Purpose
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0456
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection (system side)		Screw terminals, tightening torque min. 0.5 Nm Stripped length 7 mm usable thread length 11.5 mm screw-in depth max. 11.5 mm
Core cross-section (system side)		rigid: 0.14 ... 2.5 mm ² flexible: 0.14 ... 1.5 mm ² flexible with core-end sleeve: 0.25 ... 1.5 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Tightening torque, housing screws		1 Nm
Tightening torque, cable gland		M20 x 1.5 ; max. 7 Nm
General information		
Use in the hazardous area		see instruction manuals

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Connection



Matching system components

	BT115A	Activator for F31 series
	BT115X	Activator for F31 series

Accessories

	BT65B	Activator for F31 series
	BT115B	Activator for F31 series
	BT65A	Activator for F31 series
	BT65X	Activator for F31 series

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