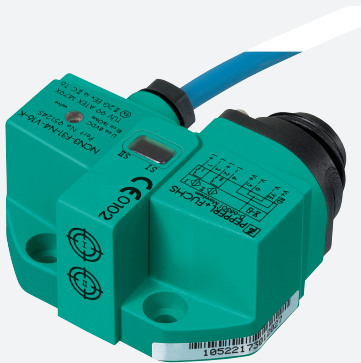




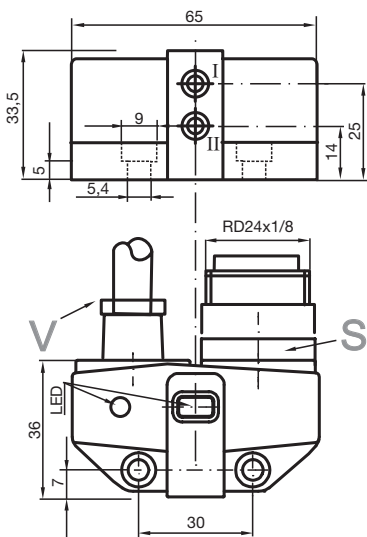
Inductive sensor

NCN3-F31-N4-V16-K

- Direct mounting on standard actuators
- Fixed setting
- EC-Type Examination Certificate TÜV99 ATEX 1479X
- 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	
Reduction factor r_{304}		1	
Reduction factor r_{Si37}		1.3	
Reduction factor r_{Brass}		0.6	

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

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PEPPERL+FUCHS

Technical Data

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
Valve status 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 %
Valve circuit		
Voltage		max. 32 V DC
Current		max. 240 mA
Short-circuit protection		no
Reverse polarity protection		yes, with reversed output LED is out of function, therefore more power for solenoid valve
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) Note: Under the same product name but with a different part no., this product has a predecessor with a restricted temperature range (up to +70 °C). The temperature range specified here (up to +100°C) only applies to sensors with part no. 2239**.
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection (system side)		Connector plug Rd24 x 1/8 , 7-pin
Connection (valve side)		PVC cable , 0.5 m
Core cross-section (valve side)		0.75 mm²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67

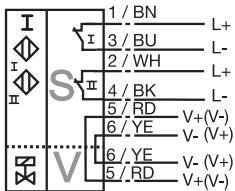
Release date: 2020-06-10 Date of issue: 2020-06-10 Filename: 223959_eng.pdf

Technical Data

Cable		
Cable diameter		6 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
General information		
Use in the hazardous area		see instruction manuals

Connection

N4-K



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