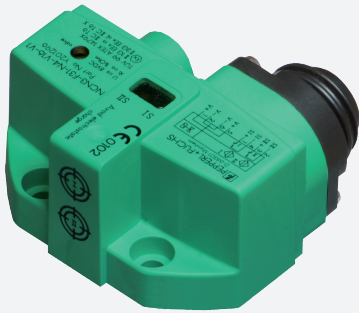




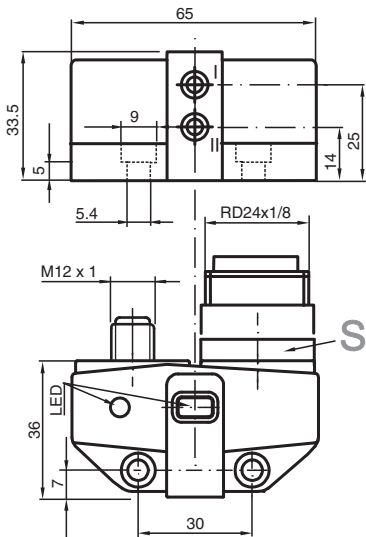
Inductive sensor

NCN3-F31-N4-V16-V1-Y223960

- 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

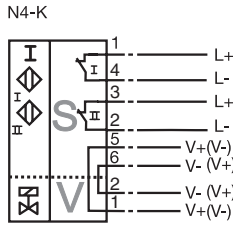
General specifications		
Switching function		2 x normally closed (NC)
Output type		NAMUR
Rated operating distance	S _n	3 mm
Installation		flush mountable
Assured operating distance	S _a	0 ... 2.4 mm
Actual operating distance	S _r	2.7 ... 3.3 mm typ.
Actuating element		Stainless steel 1.4305 / AISI 303 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 ₃₁₇		1.3
Reduction factor r _{Brass}		0.6
Output type		2-wire
Nominal ratings		

Technical Data

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		
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)		V16-connector
Connection (valve side)		1 connector V1 (M12 x 1)
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
General information		
Use in the hazardous area		see instruction manuals

Release date: 2020-06-10 Date of issue: 2020-06-10 Filename: 223960_eng.pdf

Connection



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