

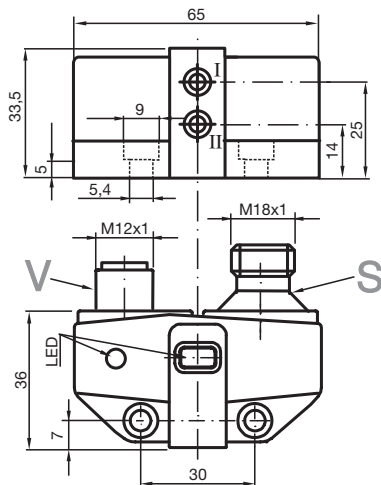


## Inductive sensor NCN3-F31-N5-V18-V1

- Direct mounting on standard actuators
- Fixed setting
- EC-Type Examination Certificate TÜV99 ATEX 1479X
- 2:1 transfer method



### 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.
Reduction factor $r_{Al}$		0.35
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.75
Reduction factor $r_{St37}$		1
Reduction factor $r_{Brass}$		0.45
Output type		2-wire

#### Nominal ratings

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

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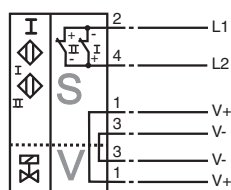
**PF** PEPPERL+FUCHS

**Technical Data**

Nominal voltage	U <sub>o</sub>	8 V
Switching frequency	f	0 ... 3 kHz
Hysteresis	H	typ. 5 %
Short-circuit protection		yes
Suitable for 2:1 technology		yes , Reverse polarity protection diode not required
<b>Current consumption</b>		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Time delay before availability	t <sub>v</sub>	≤ 1.1 ms
Switching state indicator		LED, yellow
Valve status indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1470 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
Electromagnetic compatibility		NE 21:2007
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
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 ... 100 °C (-13 ... 212 °F) <b>Note:</b> 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)
<b>Mechanical specifications</b>		
Connection (system side)		V18 connector
Connection (valve side)		V1 connector
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
<b>General information</b>		
Use in the hazardous area		see instruction manuals

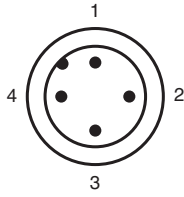
**Connection**

N5-V18-V1



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## Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

## Matching System Components

	<b>BT115A</b>	Activator for F31 series
	<b>BT115X</b>	Activator for F31 series

## Accessories

	<b>VMA-2+P/Z2-0,3M-PVC-V1-W-Y</b>	Valve connector, Form A on M12, 2+PE, LED, Z diode, PVC cable
	<b>VMB-2+P/Z2-0,3M-PVC-V1-W-Y</b>	Valve connector, Form B on M12, 2+PE, LED, Z diode, PVC cable
	<b>VMBI-2+P/Z2-0,3M-PVC-V1-W-Y</b>	Valve connector, Form B (Ind) on M12, 2+PE, LED, Z diode, PVC cable
	<b>BT65A</b>	Activator for F31 series
	<b>BT65X</b>	Activator for F31 series

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