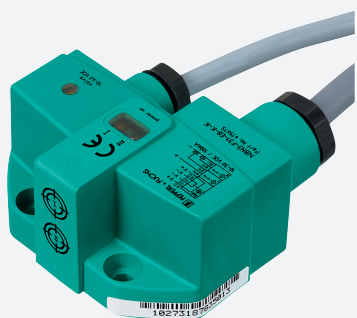


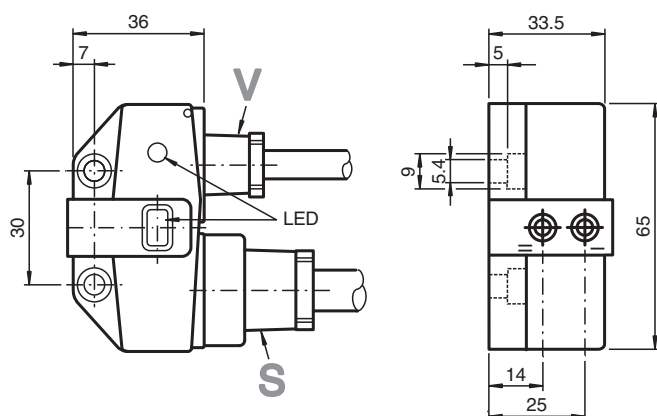


Inductive sensor NBN3-F31-E8-K-K

- Direct mounting on standard actuators
- Fixed setting



Dimensions



Technical Data

General specifications

Switching function		2 x normally open (NO)
Output type		PNP
Rated operating distance	s_n	3 mm
Installation		flush mountable
Output polarity		DC
Assured operating distance	s_a	0 ... 2.43 mm
Actual operating distance	s_r	2.7 ... 3.3 mm typ.
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		1
Reduction factor r_{St37}		1.2
Output type		3-wire

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 500 Hz

Release date: 2020-03-20 Date of issue: 2020-03-30 Filename: 047567_eng.pdf

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

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PEPPERL+FUCHS

Technical Data

Hysteresis	H	typ. 5 %
Reverse polarity protection		all connections
Short-circuit protection		pulsing
Voltage drop	U_d	$\leq 3 \text{ V}$
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μA at 25 °C
No-load supply current	I_0	$\leq 25 \text{ mA}$
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Valve status indicator		LED, yellow

Functional safety related parameters

MTTF _d	780 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	
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
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36 \text{ V}$

Ambient conditions

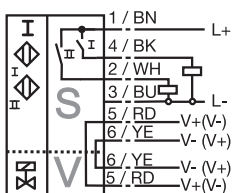
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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Mechanical specifications

Connection (system side)	PVC cable 5 m
Core cross-section (system side)	0.75 mm ²
Connection (valve side)	PVC cable 0.5 m
Core cross-section (valve side)	0.75 mm ²
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

Connection

E8-K-K



Matching system components

	BT115A	Activator for F31 series
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Matching system components

**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