

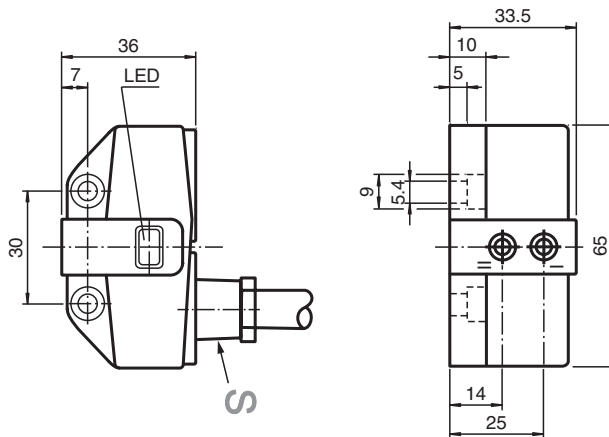


Inductive sensor NBN3-F31-U8-K

- Direct mounting on standard actuators
- Compact and stable housing
- Fixed setting



Dimensions



Technical Data

General specifications

Switching function		2 x normally open (NO)
Rated operating distance	s_n	3 mm
Installation		flush mountable
Output polarity		AC/DC
Assured operating distance	s_a	0 ... 2.43 mm
Reduction factor r_{AI}		0.45
Reduction factor r_{Cu}		0.38
Reduction factor r_{304}		1
Reduction factor r_{St37}		1.04
Output type		4-wire

Nominal ratings

Operating voltage	U_B	20 ... 253 V AC/DC
Switching frequency	f	25 Hz
Hysteresis	H	typ. 3 %
Reverse polarity protection		yes
Short-circuit protection		yes

Release date: 2022-06-21 | Date of issue: 2022-06-21 | Filename: 188325_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

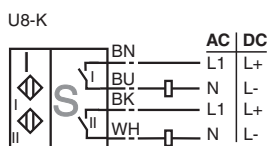
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS



Technical Data

Voltage drop	U_d	$\leq 8 \text{ V}$
Operating current	I_L	4 ... 400 mA
Off-state current	I_r	$\leq 1.7 \text{ mA}$
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		529 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
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		
Protection class		II
Rated insulation voltage	U_i	253 V
Rated impulse withstand voltage	U_{imp}	4 kV
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		cable PVC , 5 m
Core cross section		0.5 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Cable diameter		5.2 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Tightening torque, fastening screws		4 Nm ... 5 Nm

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