

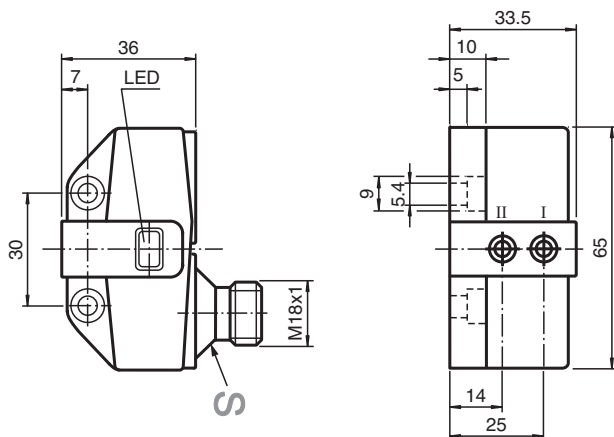


Inductive sensor NBN3-F31-U8-V18

- 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_{Si37}		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: 2025-02-26 Date of issue: 2025-02-26 Filename: 199144_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

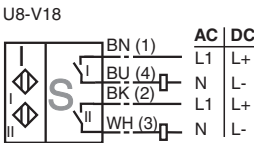
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

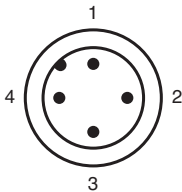
Technical Data

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 IEC 60947-5-2
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		Connector plug M18 x 1 , 4-pin
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Tightening torque, fastening screws		$\leq 5\text{ Nm}$
Dimensions		
Height		33.5 mm
Width		65 mm
Length		36 mm

Connection



Connection Assignment



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

Connection Assignment

Wire colors in accordance with EN 60947-5-2

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