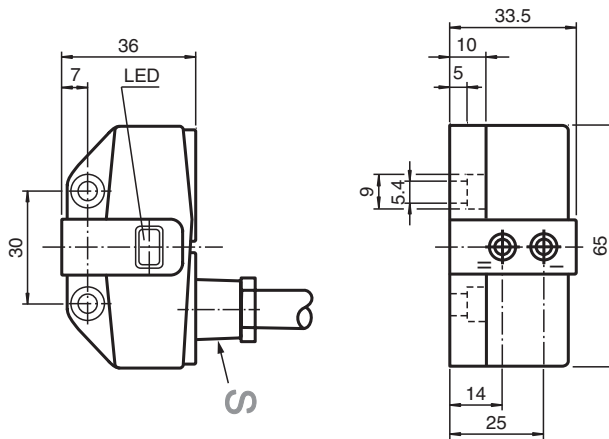


## Inductive sensor NBN3-F31-U8-K

- 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

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## Technical Data

Voltage drop	$U_d$	$\leq 8$ V
Operating current	$I_L$	4 ... 400 mA
Off-state current	$I_r$	$\leq 1.7$ mA
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		529 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
Protection class		II
Rated insulation voltage	$U_i$	253 V
Rated impulse withstand voltage	$U_{imp}$	4 kV
UL approval		cULus Listed Load Type: General Purpose Enclosure Type Rating: Type 1
CSA approval		cCSAus Listed, General Purpose
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Wire end ferrules		yes
Cable diameter		5.2 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		grey
Number of cores		4
Core cross section		0.5 mm <sup>2</sup>
Length	L	5 m
Tightening torque, fastening screws		$\leq 5$ Nm
Dimensions		
Height		33.5 mm
Width		65 mm
Length		36 mm

## Connection

