



## Model Number

**NBN3-F31-U8-K**

## Features

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

## Accessories

### BT65A

Activator for F31 series

### BT65X

Activator for F31 series

### BT115A

Activator for F31 series

### BT115X

Activator for F31 series

### BT65B

Activator for F31 series

### BT115B

Activator for F31 series

## 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
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

### Functional safety related parameters

MTTF <sub>d</sub>		529 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %

### Ambient conditions

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

Connection type		cable PVC, 5 m
Core cross-section		0.5 mm <sup>2</sup>
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Cable diameter		5.2 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter

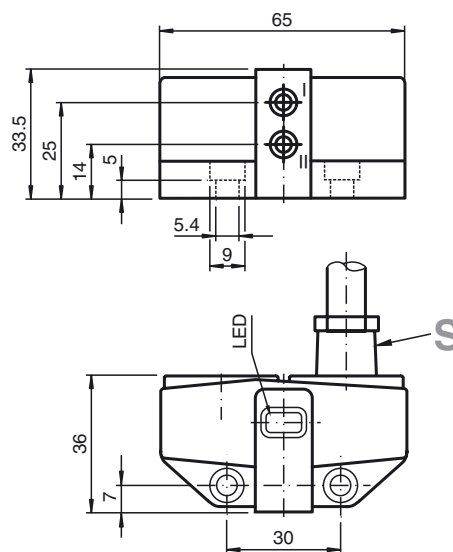
### Compliance with standards and directives

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

## Dimensions



Electrical Connection

