



Model Number

NBN3-F31-Z8-K

Features

- Direct mounting on standard actuators
- 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)
Output type		Two-wire
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. 3 mm
Reduction factor r_{AI}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		1
Reduction factor r_{Si37}		1.1
Output type		4-wire

Nominal ratings

Operating voltage	U_B	6 ... 60 V DC
Switching frequency	f	0 ... 500 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 5.5 V
Operating current	I_L	4 ... 100 mA
Lowest operating current	I_m	4 mA
Off-state current	I_r	0.5 ... 0.9 mA typ. 0.65 mA
Time delay before availability	t_v	≤ 40 ms
Switching state indicator		LED, yellow

Limit data

Tightening torque, fastening screws	0.4 Nm
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Functional safety related parameters

MTTF _d	570 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 (system side)	PVC cable 5 m
Core cross-section (system side)	0.75 mm ²
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67
Cable	
Cable diameter	6.8 mm \pm 0.2 mm
Bending radius	> 10 x cable diameter
Mass	196 g

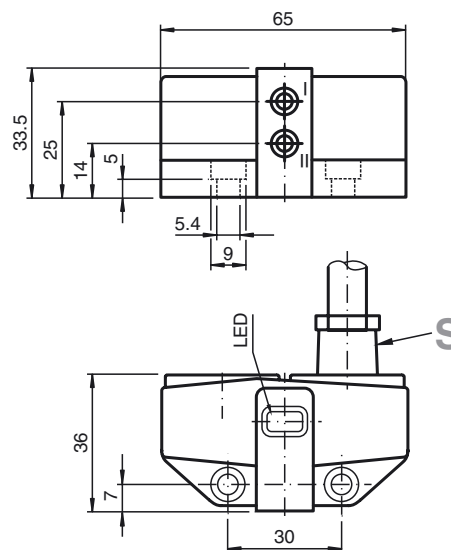
Compliance with standards and directives

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

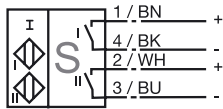
UL approval	cULus Listed, General Purpose, Class 2 Power Source
CCC approval	Certified by China Compulsory Certification (CCC)

Dimensions



Electrical Connection

Z8-K





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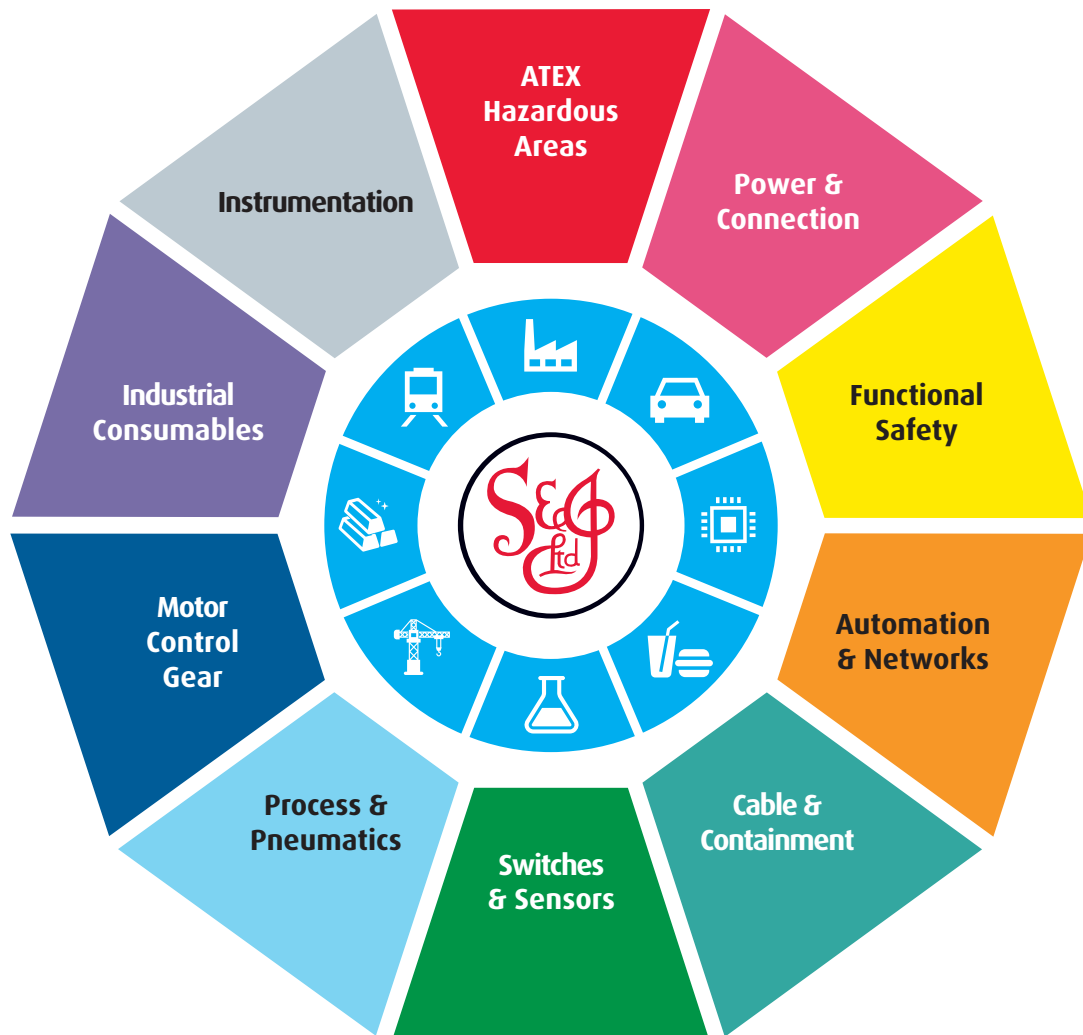
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