



Model Number

NBN3-F31-Z8-V16-V15

Features

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

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

V16-G

Female connector, dia. 24, 6-pin+PE, field attachable

V16-W

Female connector, dia. 24, 6-pin+PE, field attachable

V15S-G-PG9

Cable connector, M12, 5-pin, ready for assembly

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.
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		1
Reduction factor r_{St37}		1.1
Output type		2-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		no
Voltage drop	U_d	≤ 6 V
Operating current	I_L	4 ... 100 mA
Lowest operating current	I_m	4 mA
Off-state current	I_r	0 ... 1 mA typ. 0.7 mA
Time delay before availability	t_v	≤ 1 ms
Switching state indicator		LED, yellow
Valve status indicator		LED, yellow

Limit data

Tightening torque, fastening screws	0.4 Nm
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Functional safety related parameters

MTTF _d	590 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Valve circuit

Voltage	max. 32 V DC
Current	max. 240 mA
Short-circuit protection	no
Reverse polarity protection	yes, with reversed output LED is out of function, therefore more power for solenoid valve

Ambient conditions

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

Connection (system side)	Connector plug Rd24 x 1/8, 4-pin
Connection (valve side)	5-pin, M12 x 1 socket
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

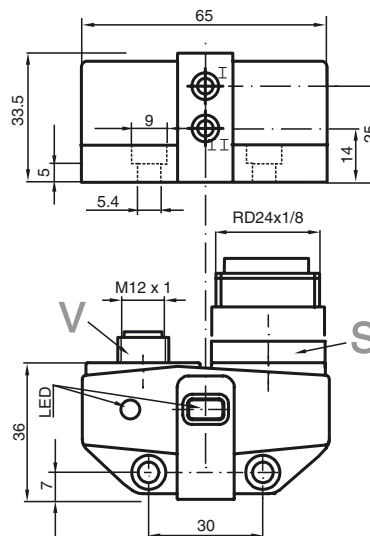
Compliance with standards and directives

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

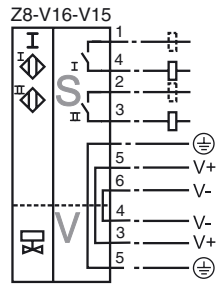
Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose

Dimensions



Electrical Connection



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