



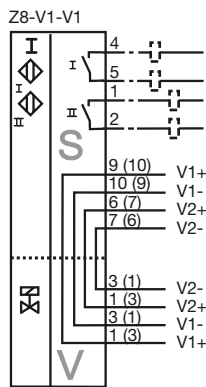
Model Number

NBN3-F31K-Z8-V1-V1

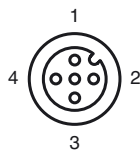
Features

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

Connection



Pinout



Wire colors in accordance with EN 60947-5-2

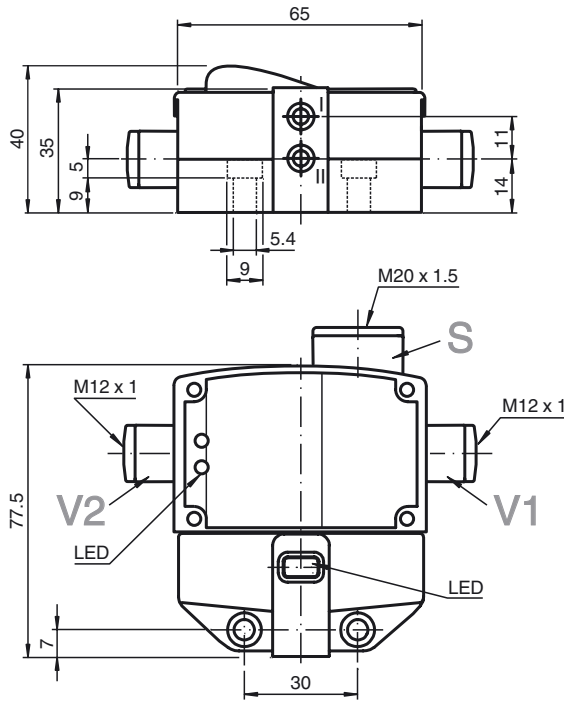
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)
5	GY	(gray)

Accessories

VMCI-2+P/Z2-0,3M-PVC-V1-W-Y
Valve connector, Form C (Ind) on M12, 2+PE, LED, Z diode, PVC cable

VMB-2+P/Z2-0,3M-PVC-V1-W-Y
Valve connector, Form B on M12, 2+PE, LED, Z diode, PUR cable

Dimensions



Technical Data

General specifications	
Switching element function	DC binary NO
Rated operating distance	s_n 3 mm
Installation	flush mountable
Output polarity	DC
Assured operating distance	s_a 0 ... 2.43 mm
Reduction factor r_{AI}	0.5
Reduction factor r_{Cu}	0.4
Reduction factor r_{304}	1
Reduction factor r_{Si37}	1.2

Nominal ratings	
Operating voltage	U_B 10 ... 30 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 \leq 3 V
Operating current	I_L 0 ... 100 mA
Off-state current	I_r 0 ... 0.5 mA typ.
No-load supply current	I_0 \leq 25 mA
Operating voltage display	LED, green
Switching state indication	LED, yellow
Valve status indication	LED, yellow

Functional safety related parameters	
MTTF _d	590 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

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

Mechanical specifications	
Connection (system side)	Cage tension spring terminals
Core cross-section (system side)	1.5/2.5 mm ² flexible/rigid
Connection (valve side)	4-pin, M12 x 1 socket
Housing material	PBT
Sensing face	PBT
Protection degree	IP67
Tightening torque, housing screws	1 Nm
Tightening torque, cable gland	M20 x 1.5 ; \leq 7 Nm

Compliance with standards and directives	
Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates	
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated \leq 36 V

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