



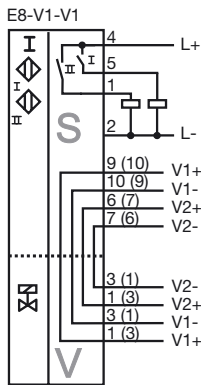
Model Number

NBN3-F31K-E8-V1-V1

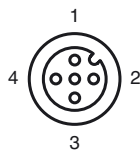
Features

- 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

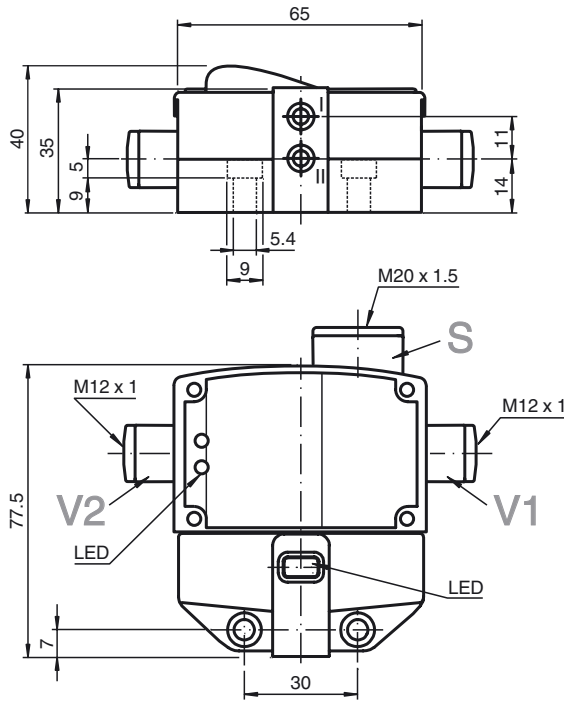
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)
5	GY	(gray)

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	PNP	Dual 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		all connections
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A
No-load supply current	I_0	≤ 25 mA
Operating voltage display		LED, green
Switching state indication		LED, yellow
Valve status indication		LED, yellow
Functional safety related parameters		
MTTF _d		780 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 ; ≤ 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 ≤ 36 V

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