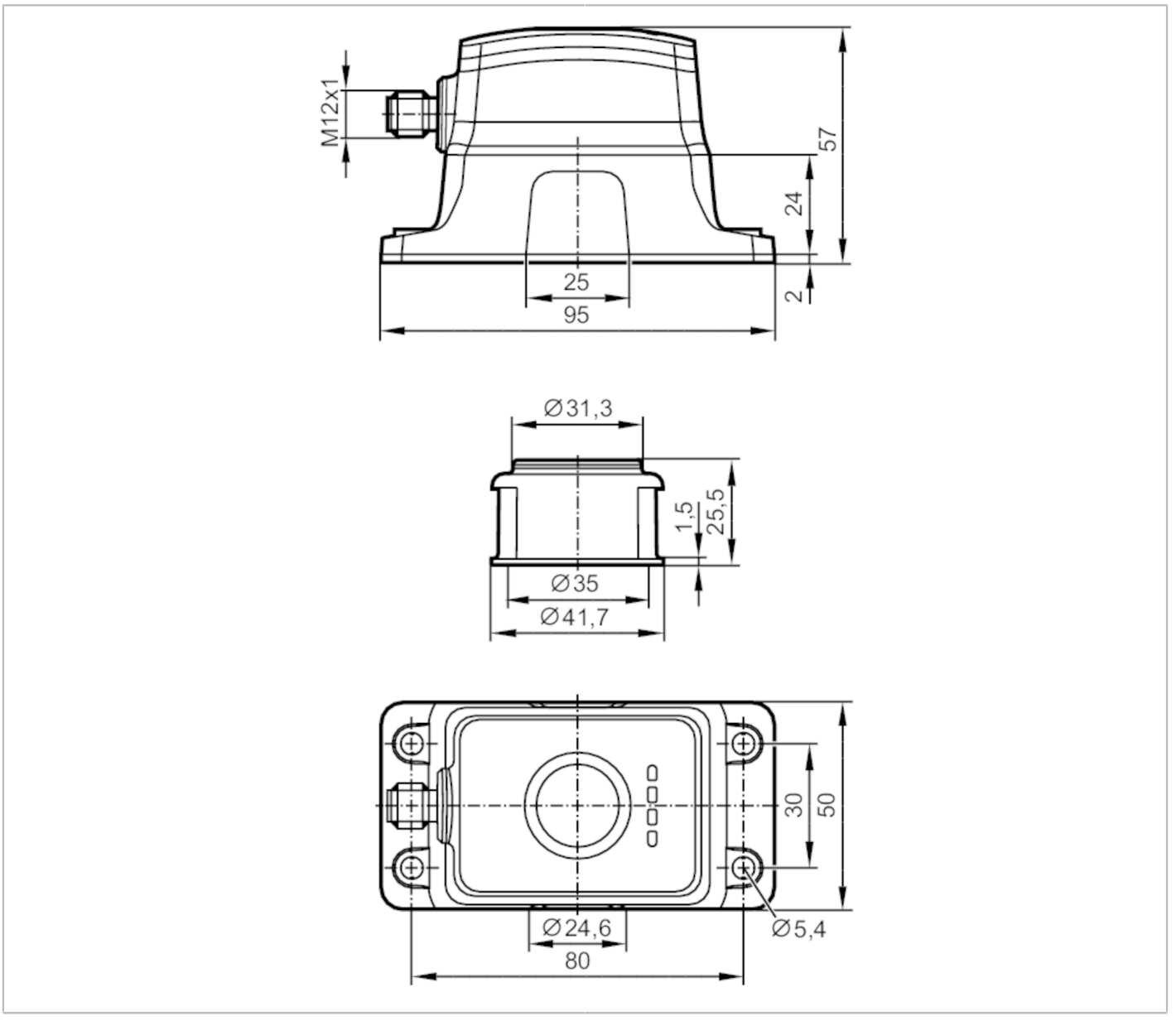
MVQ101

Position sensor for valve actuators

SVS BASIC IO-LINK



Product characteristics		
Electrical design		PNP
Output function		3 x normally open / normally closed; (selectable)
Communication interface		IO-Link
Housing		rectangular
Dimensions	[mm]	95 x 50 x 57
Application		
Operating principle		magnetic
Application		angle of rotation detection absolute
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	< 40

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Protection class		III	
Reverse polarity protection		yes	
Max. power-on delay time	[ms]	300	
Outputs			
Electrical design		PNP	
Output function		3 x normally open / normally closed; (selectable)	
Max. voltage drop switching output DC	[V]	2.5	
Permanent current rating of switching output DC	[mA]	100	
Short-circuit protection		yes	
Overload protection		yes	
Detection zone			
Detection zone	[°]	360	
Accuracy / deviations			
Accuracy	[°]	± 1	
Resolution	[°]	0.1	
Tolerance	[°]	0.1...15; (Default 10)	
Hysteresis	[°]	0.1...5; (Default 3)	
Temperature drift	[°/K]	0,02	
Repeatability	[°]	0,1	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9 CDV	
Profiles		Smart Sensor: Device Identification; Device Diagnosis; Device Teach Channel; Binary Data Channel; Process Data Variable; Blob; Measurement Data Channel	
SIO mode		yes	
Required master port type		A	
Min. process cycle time	[ms]	4	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	595
Operating conditions			
Ambient temperature	[°C]	-25...70	
Protection		IP 65; IP 67; (Target puck area dust-protected)	
Tests / approvals			
EMC		EN 61000-4-2	4 kV CD / 8 kV AD
		EN 61000-4-3	10 V/m
		EN 61000-4-4	2 kV
		EN 61000-4-6	10 V
		EN 55011	class B
Vibration resistance		EN 60068-2-6 Fc	1 mm (10...55 Hz) / 1 octave per minute in 3 axes
Shock resistance		EN 60068-2-27 Ea	30 g 11 ms half sine; 6 shocks each in every direction along the three coordinate axes

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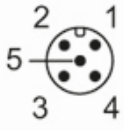
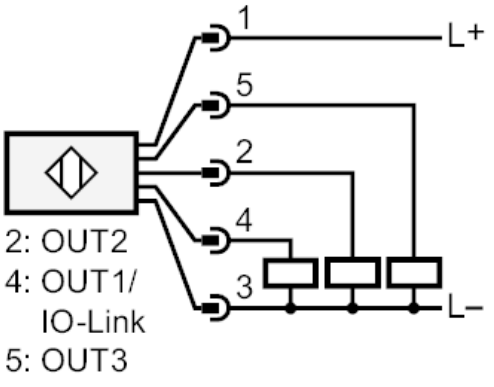
MTTF	[years]	410	
Embedded software included		yes	
UL approval		UL Approval no.	S001
Mechanical data			
Weight	[g]	175	
Housing		rectangular	
Dimensions	[mm]	95 x 50 x 57	
Materials		PA	
Tightening torque	[Nm]	1.5	
Displays / operating elements			
Display		operation	1 x LED, green
		switching status	2 x LED, white RGB
Accessories			
Items supplied		socket head screws: 4 x M5 x 16, stainless steel	
Remarks			
Pack quantity		1 pcs.	
Electrical connection - plug			

Connector: 1 x M12; coding: A; Moulded body: stainless steel



Connection



1	Ub
2	Out2
3	GND
4	Out1 IO-Link
5	Out3