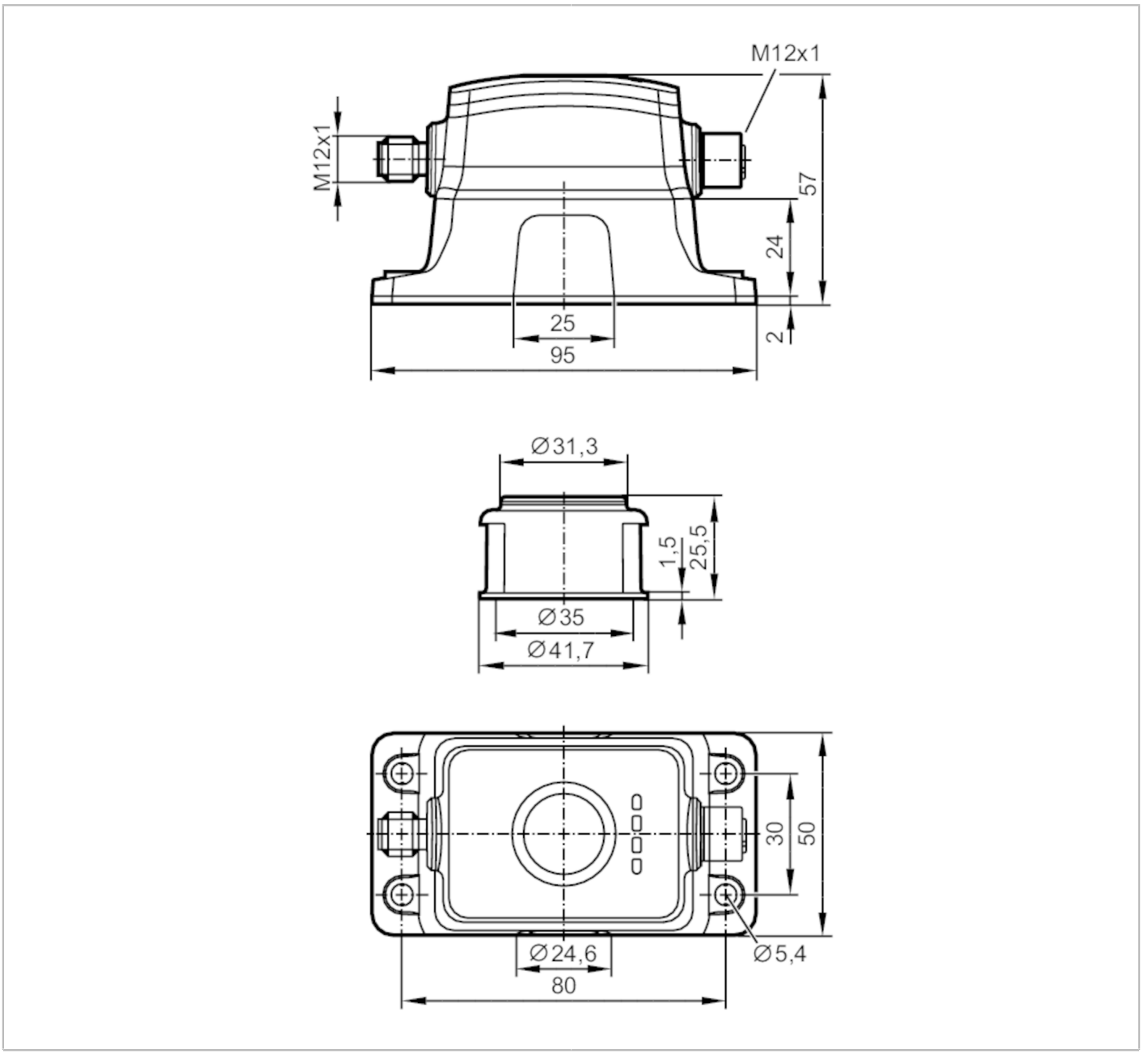
MVQ201

Position sensor for valve actuators

SVS SOLENOID OUT



Product characteristics		
Electrical design		PNP
Output function		2 x normally open / normally closed; (selectable)
Communication interface		IO-Link
Housing		rectangular
Dimensions	[mm]	95 x 50 x 57
Solenoid valve connection		
Output function		2 x normally open
Application		
Operating principle		magnetic

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Application		angle of rotation detection absolute
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	< 40
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	300
Inputs / outputs		
Number of inputs and outputs		Number of digital inputs: 1; Number of digital outputs: 2
Inputs		
Number of digital inputs		1
Outputs		
Electrical design		PNP
Number of digital outputs		2
Output function		2 x normally open / normally closed; (selectable)
Max. voltage drop switching output DC	[V]	2.5
Max. current load per output	[mA]	100
Short-circuit protection		yes
Overload protection		yes
Solenoid valve connection		
Output function		2 x normally open
Max. current load per output	[mA]	200
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

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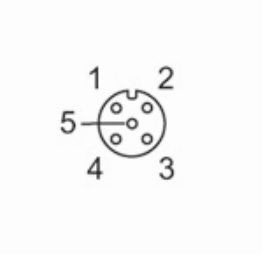
Min. process cycle time	[ms]	4	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	1190
Operating conditions			
Ambient temperature	[°C]	-25...70	
Protection		IP 65; IP 67; (Target puck area dust-protected)	
Tests / approvals			
EMC		EN 61000-4-2	4 kV CD / 8 kV AD
		EN 61000-4-3	10 V/m
		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
MTTF	[years]	363	
Embedded software included		yes	
UL approval		UL Approval no.	S002
Mechanical data			
Weight	[g]	192	
Housing		rectangular	
Dimensions	[mm]	95 x 50 x 57	
Materials		PA	
Tightening torque	[Nm]	3	
Displays / operating elements			
Display		operation	1 x LED, green
		switching status	2 x LED, white
			1 x LED, RGB
Accessories			
Items supplied		socket head screws: 4 x M5 x 16, stainless steel	
Remarks			
Pack quantity		1 pcs.	

Electrical connection - solenoid valve

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



2	Out SV2
3	GND
4	Out SV1

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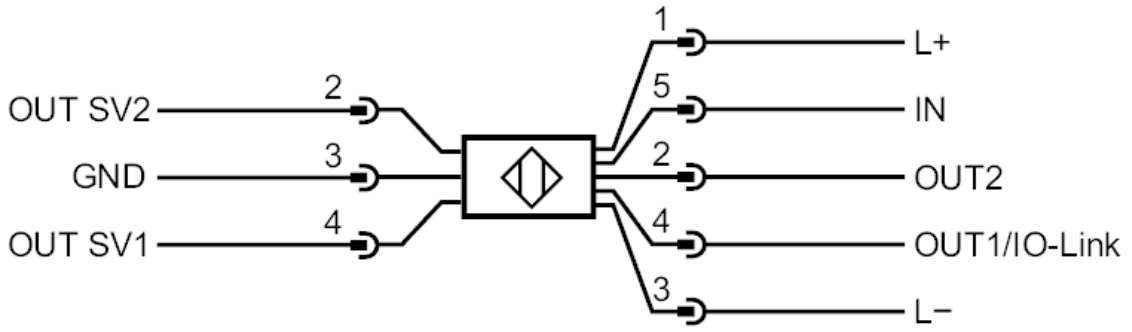
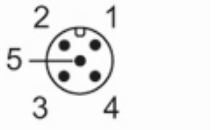
Electrical connection

Connection



Electrical connection - Process connection

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



1	Ub
2	Out2
3	GND
4	Out1 IO-Link
5	In1

Other data

Inputs

Operating mode	12 V	24 V
switching level high	6...30 V	15...30 V
switching level low	0...2 V	0...5 V