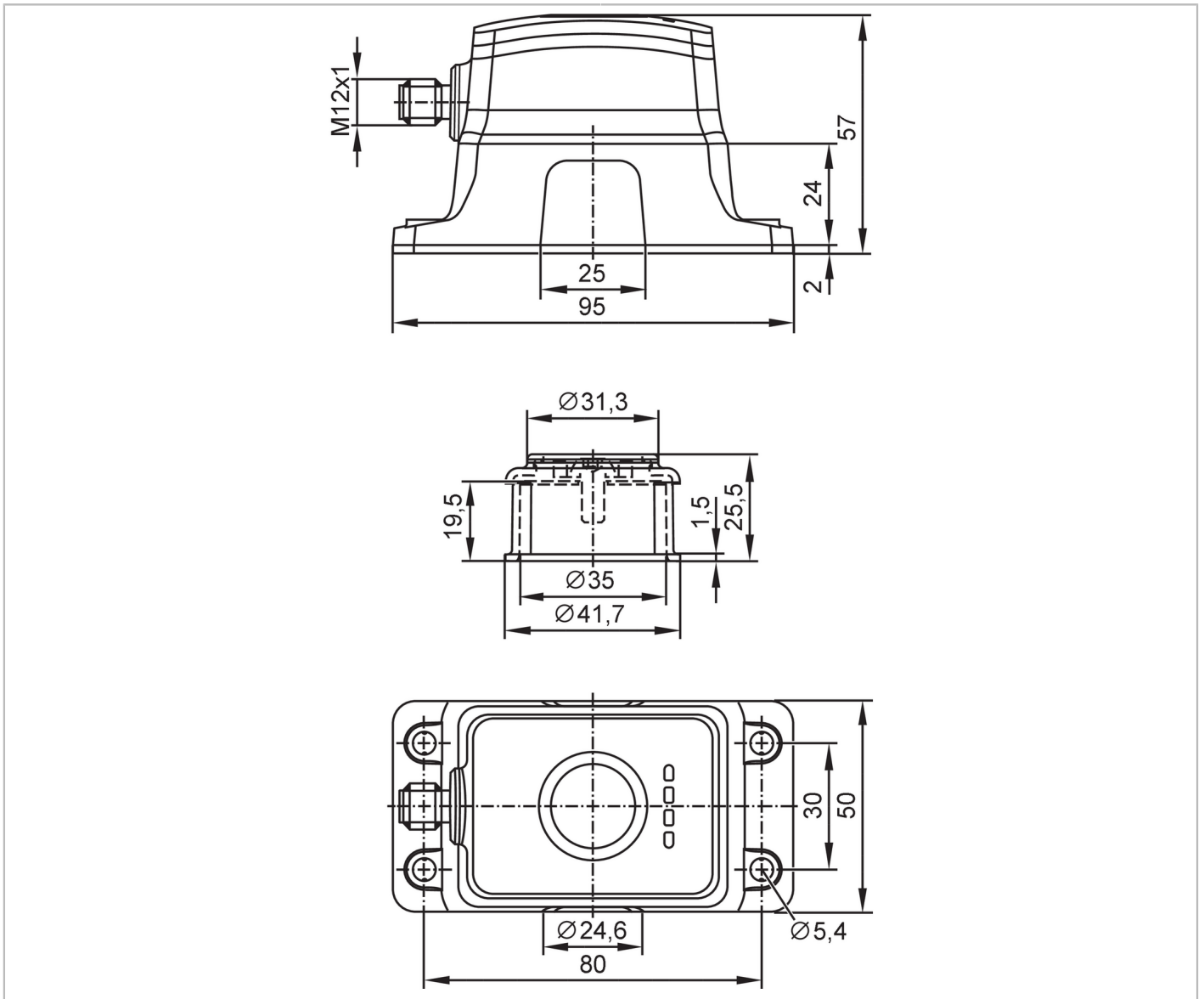


MVQ101



Position sensor for valve actuators

SVS BASIC IO-LINK



Product characteristics	
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	95 x 50 x 57
Switching outputs	
Electrical design	PNP
Output function	3 normally open / normally closed; (selectable)
Application	
Principle of operation	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

Switching outputs	
Electrical design	PNP
Output function	3 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

Monitoring range

Monitoring range [°]	360
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Accuracy / deviations

Rotational angle detection	
Accuracy [°]	± 1
Resolution [°]	0.1
Temperature drift [°/K]	0,02
Repeatability [°]	0,1

Switch point indication

Tolerance [°]	0.1...15; (Factory setting: 10)
Hysteresis [°]	0.1...5; (Factory setting: 3)

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 - SSP 3.1	Measuring Sensor
	BLOB	Binary Large Object transfer
	Common - I&D	Identification and Diagnosis
	Function	Multiple switching signal
	Function	Teach channel
SIO mode	yes	
Required master port class	A	
Min. process cycle time [ms]	4	
Supported DeviceIDs	Type of operation	DeviceID
	default	595

Operating conditions

Ambient temperature [°C]	-25...70
Storage temperature [°C]	-40...70
Protection	IP 65; IP 67; (Target puck area dust-protected)

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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]		410
Embedded software included		yes
UL approval	UL approval number	S001

Mechanical data		
Weight [g]		175
Housing		rectangular
Dimensions [mm]		95 x 50 x 57
Material		housing: PA; target puck: PA; plug: stainless steel (316L / 1.4404)
Tightening torque [Nm]		target puck: 1,2; housing: 3,0; housing on plastic mounting plate: 0,9

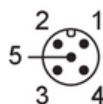
Displays / operating elements		
Display	Power	1 x LED, green
	Switching status	2 x LED, white
	Switching status	1 x LED, RGB

Accessories	
Items supplied	socket head screws: 4 x (M5 x 16 mm), stainless steel

Remarks	
Pack quantity	1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 5; Moulded body: stainless steel



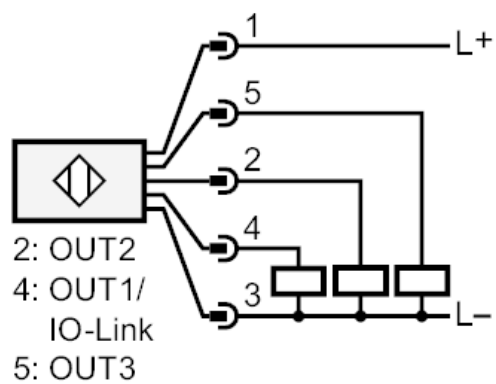
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Connection



1	L+
2	Out2
3	L-
4	Out1 IO-Link
5	Out3