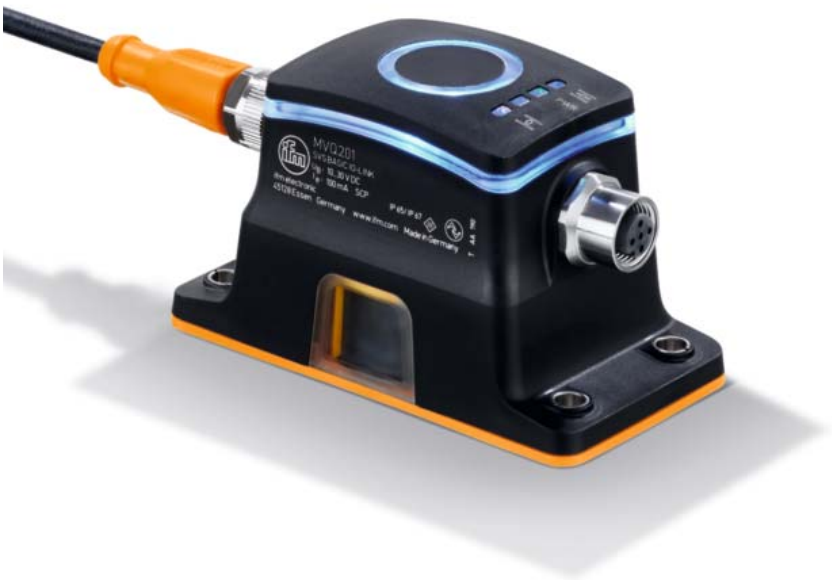
No detours: valve sensor directly connected to control valve

Feedback systems for valves and valve actuators



Less networking complexity due to direct control of the control valve

Self-diagnostics regarding wear, blockages or deposits, for maintenance tailored to your needs

LED flash mode for quick visual sensor localisation

End position setting with just one click for even quicker set-up

IO-Link

Stainless steel

VDI VDE 3845

Laptop parameter setting

Direct connection reduces wiring

The MVQ201 continuously monitors the position of the valve to the nearest degree. Via the "Auto teach" function, the end positions are automatically approached and taught. The control valve can be easily connected via the separate M12 connection and be controlled via IO-Link. This reduces wiring and installation complexity – reducing possible sources of error.

User-friendly status query, maintenance information in good time

The defined valve positions are signalled via two switching outputs as well as via the clearly visible status LED. The sensor also detects altered closing durations, which suggest wear, deposits or blockages due to foreign bodies, and signals them via IO-Link. This allows for demand-oriented maintenance planning or immediate troubleshooting, which help avoid longer and costly plant downtimes. To simplify localisation, the selected device flashes green in flash mode.

Mounting dimensions [VDI/VDE 3845]	Shaft height [mm]	Shaft diameter [mm]	Input function / output function	Accuracy / resolution [°]	Order no.
Smart valve sensor · M12 connector · control valve output					
80 x 30	20	< 38	2 x NC / NO (selectable), 2 x NO for valve control	± 1 / 0.1	**MVQ201**

Accessories

Type	Description	Order no.
Installation		
	Mounting adapter, 80 x 30 mm (VDI/VDE 3845) Shaft height: 30 mm, Ø < 38 mm	**E12569**
	Mounting adapter, 130 x 30 mm (VDI/VDE 3845) Shaft height: 30 mm, Ø < 38 mm	**E12573**
	Mounting bridge 80 x 30 / 130 x 30 mm (VDI/VDE 3845) Shaft height: 20...40 mm, Ø > 38 mm	**E12674**
	Mounting bridge 80 x 30 / 130 x 30 mm (VDI/VDE 3845) Shaft height: 30...50 mm, Ø > 38 mm	**E12628**
IO-Link		
	IO-Link master with PROFINET interface	**AL1100**
	LR DEVICE (supplied on USB flash drive) Software for online and offline parameter setting of IO-Link sensors and actuators	**QA0011**

Further technical data		
Operating voltage	[V DC]	10...30
Current rating	[mA]	2 x 100, 2 x 200 (valve control)
Detection range	[°]	360
Reverse polarity protection		•
Short-circuit protection		•
Protection rating		IP 65 / IP 67
Ambient temperature	[°C]	-25...70
Tolerance	[°]	± 0.1...15
Repeatability	[°]	0.1
Type of transmission		COM2 (38.4 kBaud)
IO-Link revision		1.1
Min. process cycle time	[ms]	4
Required master port class		A
SIO mode		•
Profiles		Smart sensor: Device identification; Device diagnosis; Device teach channel; Binary data channel; Process data variable; Measurement data channel
Housing materials		PA; stainless steel plug
Dimensions	[mm]	95 x 50 x 57

Directly connected to the control valve

The MVQ201 has a separate M12 connection for direct connection to the control valve, which can then be easily controlled via IO-Link. The short cable path simplifies installation and reduces data transmission's susceptibility to failure.

Moreover, additional information, e.g. altered closing and opening durations of the valve, due to deposits or wear, is provided via IO-Link and can then be further processed either in the SMART OBSERVER or in the controller.

This allows for condition-based maintenance and cleaning of the plant as well as for prevention of unplanned and costly downtime.