

SVI® II

Digital Positioner

Accurate, Scalable, Robust Control Solutions for Today, and Tomorrow.



Flexibility and versatility: Masoneilan's SVI® II digital valve positioner provides high performance solutions for any process control application. SVI II offers advanced features and functions using the HART® Communications protocol. It is designed for use with any control valve system making it a truly universal control solution.

Accuracy and Precision: Performance of the final control element is critical to the overall operating efficiency of any process control system. The SVI II provides extremely accurate and precise control valve positioning, resulting in high process efficiency and excellent product yield. In addition, reliability of all related system components and equipment will increase due to reduced operating loads.

Non-Contact Position Sensor: Valve position sensing is accomplished using a solid state, Hall Effect sensor. This sensor projects into an extension in the back of the housing, but does not penetrate the body wall. It monitors the position of a magnetic ring attached to the valve shaft/stem producing extremely accurate position feedback to the positioner. This non-contact design dramatically increases lifetime reliability by eliminating sensor wear and a housing penetration.

Robust Modular Construction: Each major section of the SVI II has been designed into separate modules for ease of maintenance and field repair. Separate modules exist for the pneumatic train, electronics section, and mounting system, each with its own proven robust design. This also provides flexibility for upgrades as required, such as advanced diagnostics and PID process control.

Features

- High Performance Valve Positioning
- Scalable Platform for Hardware & Firmware Upgrades
- Robust Modular Construction
- Auto-Calibrate and Auto-Tune
- Non-Contact Hall Effect Position Sensor
- Explosion Proof LCD and Pushbuttons
- Simple Mounting for Retro-fit
- Integral Valve Position Transmitter and Limit Switches
- Basic and Advanced Diagnostics
- Advanced Diagnostics Signatures Stored in the Positioner
- ValVue® 2 Companion Software
- ValVue / AMS SNAP-ON™ Application

Masoneilan®

Smart Valve Interface® III

Technical Specifications

SVI[®] II

Masoneilan SVI II Digital Positioner

Performance*

Hysteresis + Deadband	±0.2%
Repeatability	±0.2%
Sensitivity	±0.2%
Conformity	±0.3%
Accuracy	±0.5% (typical ±0.25%)
Operating Temperature Range	-58°F to +185°F (-50°C to +85°C)

Input Power and Signal

Signal	4-20 mA with HART [®] Communication Protocol
Power Supply	Taken from 4-20 mA Control Signal
Minimum Terminal Voltage	11.2 Volts DC
Minimum Current Signal	3.6 mA

Pneumatics

Regulated and Filtered Air (Sweet Natural Gas)	
Double Acting, Single Acting, Supply Pressure	20-100 psi max. (1.4 to 6.9 bar) Regulate 5 to 10 psi above actuator spring range.
Air Delivery	7 scfm (198 l/m) at 30 psi (2.1 bar) supply 20 scfm (566 l/m) at 45 psi (3.1 bar) supply
Air Consumption	0.2 scfm (5.7 l/m) at 30 psi (2.1 bar) supply

Control Valve Mounting System

Non-contact Hall Effect Position Sensor
Universal Design
NAMUR Mounting for Quarter Turn Valves
Offshore Corrosion Resistant Configurations

System Connectivity

Device Description (DD) Registered
Asset Management Solutions (AMS) Driver
ValVue AMS SNAP-ON[™] Application
Selected Control Systems (DCS, PLC) with HART I/O Modules



* Performance per ISA S75.13 - 1996

Hazardous Area Certifications

Enclosure Rating	NEMA 4X / IP 66
Electro-Magnetic Compatibility	IEC 801-2,-3,-4
CE mark	

Hazardous Area Approvals

ATEX (CENELEC) Approvals:

Flameproof	According to EN 50014, EN 50018 with ATEX coding of II 2G EEx dm IIB + H ₂ T6 at Ta = 75°C
Intrinsically Safe	According to EN 50014, EN 50020 and 50284 with ATEX coding of II 1G EEx ia IIC T6 at Ta = -40°C to 60°C T5 at Ta = -40°C to 80°C
Energy Limited	According to EN 50021 with ATEX coding of II 3G EEx nL IIC T5 at Ta = -40°C to 80°C T6 at Ta = -40°C to 60°C

CSA International Certifications:

Explosion Proof	CL I; Div. 1; GR B, C, D T6 at Ta = -40°C to 80°C
Dust Ignition Proof	CL II/III; Div. 1; GR E, F, G T6 at Ta = -40°C to 80°C
Certified	CL II; Div. 2; GR F, G
Certified	CL III; Div. 2
Certified	CL I; Div. 2; GR A, B, C, D T6 at Ta = -40°C to 60°C T5 at Ta = -40°C to 80°C
Intrinsically Safe	CL I, II, III; Div. 1; GR A, B, C, D, E, F, G T4 at Ta = -40°C to 60°C T3C at Ta = -40°C to 80°C

FM Approvals:

Explosion Proof	CL I; Div. 1; GR B, C, D T6 at Ta = -40°C to 80°C
Dust Ignition Proof	CL II/III; Div. 1; GR E, F, G T6 at Ta = -40°C to 80°C
Suitable for Non-incendive	CL II, III; Div. 2; GR F, G CL I; Div. 2; GR A, B, C, D T6 at Ta = -40°C to 60°C T5 at Ta = -40°C to 80°C
Intrinsically Safe	CL I, II, III; Div. 1; GR A, B, C, D, E, F, G T6 at Ta = -40°C to 60°C T5 at Ta = -40°C to 80°C