

# Masoneilan\* SVI\* II AP Digital Valve Positioner

# fact sheet

## Advanced Performance Digital Valve Positioner with True System Interoperability

The GE Oil & Gas SVI II AP is an Advanced Performance positioner with HART® protocol, local display and pushbuttons for single- and double-acting pneumatic control valves. Its universal and modular design with proven non-contact position sensor fits many applications offering high performance valve control with real-time diagnostics.

### Key Features

- Field-proven non-contact position sensor or remote-mount position feedback
- Universal design for linear and rotary valve applications
- Field upgradable options and firmware
- Explosion proof external LCD & pushbuttons
- Standard or high flow capacities eliminating or reducing the need of additional accessories (Booster, Quick Exhaust ...)
- Setup Wizard for quick and easy commissioning
- Offline and online diagnostics
- Two (2) configurable and built-in isolated solid-state switches
- Position transmitter 4-20mA output
- Universal label with ATEX, FM, FMc, IEC ... approvals
- ValVue\* communication software
- eDDL and DTM (Standard and Advanced) support
- Industrial aluminium or stainless steel housing

### Benefits

- Faster commissioning and startup of control valves
- Accurate and reliable valve positioning
- Bi-directional communication for local or remote setup
- Integration with many control systems and asset management software
- Optimized performance regardless of actuator size



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## Specifications

### Safety Compliance:

- SIL2 self compliance per IEC61508 section 2-3

### Diagnostics:

- 5 pressure sensors
- Total travel & number of cycles
- Valve operations (time open/time close/time near closed)
- Offline control valves signatures with ValVue\* Suite or Advanced DTM
- Online diagnostics with ValVue\* OVD
- Field upgradable diagnostic levels

### Materials:

- Case/cover:
  - Aluminum ASTM 360 (standard), 316L (optional)
  - Paint<sup>(2)</sup>: Grey polyurethane (category C4 per ISO 12944-2)
- I/P transducer and relay are constructed of composite polymers and stainless steel (300 and 400 Series)

### Input Power and Signal:

- Power supply (taken from 4-20mA)
- Required terminal voltage: 9Vdc at 20mA
- Minimum current signal: 3.2mA

### Optional Output Signals:

- Valve position: 4-20mA - Two wire loop powered with 10-24Vdc compliance voltage
- Two configurable digital contacts - 1A, 30Vdc

### Input Signals:

- Valve setpoint: 4-20mA, 450 Ohms input resistance
- Remote position sensor: 1 kOhms

### Communication:

- HART® revision 5 or 6 protocol
- Open technologies: eDDL, DTM, plug-in and snap-on applications, wireless
- Field or remote communication with true control system integration

### Ambient Temperature Limits:

- -50 to 85 °C (-58 to 185 °F)

### Ambient Humidity Limits:

- 10 to 95 percent RH non-condensing

### EMC Conformity Standards:

- IEC 61514-2, EN 61326 and EN 61000-4-2, 3, 4, 5, 6, 8
- IEC 61326-1 and CISPR 22

### Actuator Travel Range:

- Linear motion: 0.25" to 4" (6.4 to 100mm) - standard mounting  
>4" (100mm) - extended mounting
- Rotary motion: 18 to 140 deg
- Travel sensor resolution: 0.0015 percent

### Control Valve Mounting System:

- Material: 300 Series St. St. standard
- Valve type:
  - Linear or rotary motion control valve
  - Single- or double<sup>(3)</sup>-acting actuator
- Optional remote-mount position sensor kit:
  - Remote Position Sensor (RPS) assembly
  - Cabling for up to 30 meters (100 feet)
  - Two inch pipe mount bracket

### Pneumatics:

- Air or sweet natural gas - Regulated and filtered
- Connections (supply and actuator): 1/4" NPT

### Air Supply Pressure:

- Single-acting: 20 to 100 psi (1.4 to 6.9 bar)
- Double-acting: 20 to 150 psi (1.4 to 10.3 bar)

### Air Delivery and Air Consumption:

Output Delivery		
Air supply	Single acting	Double acting
30 psi (2.1 bar) supply	10.0 scfm (280 l/m)	7.2 scfm (204 l/m)
60 psi (4.2 bar) supply	16.6 scfm (470 l/m)	12.8 scfm (362 l/m)
90 psi (6.3 bar) supply	23.3 scfm (660 l/m)	18.3 scfm (518 l/m)
120 psi (8.4bar) supply	NA	23.8 scfm (674 l/m)
Air Consumption		
Air supply	Single acting	Double acting
30 psi (2.1 bar) supply	0.212 scfm (6 l/m)	0.424 scfm (12 l/m)
60 psi (4.2 bar) supply	0.282 scfm (8 l/m)	0.565 scfm (16 l/m)
90 psi (6.3 bar) supply	0.424 scfm (12 l/m)	0.847 scfm (24 l/m)
120 psi (8.4bar) supply	NA	1.06 scfm (30 l/m)

### Certifications:

- FM, CSA, ATEX, IEC, JIS, GOST, KOSHA, INMETRO, NEPSI and others available
- Explosion proof, intrinsically safe, flame proof, nL
- Enclosure protection: NEMA 4X / IP66
- CE MARK

### Performance<sup>(1)</sup> per ISA S75.13 / IEC61514:

Accuracy	± 0.5 percent full span
Linearity	± 1.0 percent full span
Hysteresis + deadband	± 0.3 percent full span
Repeatability	± 0.3 percent full span
Power-up with position control	<150ms
Power interruption without causing reset	<100ms

<sup>(1)</sup> For linear characteristics

<sup>(2)</sup> The stainless steel housing is not painted

<sup>(3)</sup> Requires double-acting relay model

