

# SVI<sup>®</sup> II AP

## Advanced Performance

An Extremely Reliable Digital Positioner  
with True System Interoperability

### Key Features:

- Extreme Accuracy
- Universal design (linear or rotary applications)
- Selectable position feedback (non-contact sensor or Remote-mount position feedback)
- AO: Position transmitter 4-20mA Output
- DO: Two Discrete Outputs
- Explosion proof external LCD & buttons
- Valve position Autotune (self calibration) with user selectable valve response
- Upgradeable Flash firmware
- Split-Range
- High-speed response for Surge-Control applications
- Upgradeable options

### Digital Communication Interface Solutions:

- ValVue<sup>®</sup> Communication software:
  - Serial Port or USB Modem
  - MTL Multiplexor
- Control System Integration:
  - Emerson<sup>®</sup>
    - AMS<sup>™</sup> / AMS<sup>™</sup> ValVue SNAP-ON<sup>™</sup>
  - FDT-DTM
    - Any FDT-DTM compatible Host
  - Honeywell<sup>®</sup>
    - FDM / ValVue For Experion<sup>™</sup> / Asset Manager PKS<sup>™</sup>
  - Yokogawa<sup>®</sup>
    - PRM<sup>®</sup> / ValVue PRM Plug-In
- HART<sup>®</sup> Configuration Tools:
  - Compatible with any certified configurator using DDL technology such as Handheld 375



# Masonneilan<sup>®</sup>

## Where Flexibility Meets Best Fit Technology

Control Valves • Actuators • Pressure Regulators • Digital Instrumentation & Software  
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# SVI<sup>®</sup> II AP

## Specifications

### Safety Compliance:

- SIL2 Per IEC61508 section 2-3

### Diagnostics:

- 5 Pressure Sensors
- Total Travel
- Number of Cycles
- Time Open/Time Close/Time Near Close
- Online Diagnostics
- Upgradeable diagnostic levels

### Housing Material:

- Case/Cover: Low copper aluminum (standard), 316L (optional)
- Paint: Grey Polyurethane

### Input Power and Signal:

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

### Output Signals:

- AO (Valve Position): 4-20mA - 2 wire loop powered with 10-24Vdc compliance voltage
- DO (1 & 2): Configurable solid state switch  
- 1A – 30Vdc

### Input Signals:

- Valve Setpoint: 4-20mA
- DI (discrete input): Un-powered contact closure
- Remote position sensor

### Communication:

- HART<sup>®</sup> Protocol

### Ambient Temperature Limits:

- -58 to 185 °F (-50 to 85 °C)

### Ambient Humidity Limits:

- 10 to 95% RH non-condensing

### EMC Conformity Standards:

- EN 61000-4-2, 3, 5, 6, 8
- IEC 801-2,-3,-4
- CE MARK

### Actuator Travel Range:

- Linear Motion: 0.25" to 4" (standard mounting)  
> 4" (extended mounting)
- Rotary Motion: 18 to 140 deg
- Travel sensor resolution: 0.0015%

### Pneumatics:

Air or sweet natural gas - regulated and filtered

### Air supply pressure:

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

### Air Delivery

#### Single Acting Pneumatics:

- 10.0 scfm (280 l/m) at 30 psi (2.1 bar) supply
- 16.6 scfm (470 l/m) at 60 psi (4.2 bar) supply
- 23.3 scfm (660 l/m) at 90 psi (6.3 bar) supply

#### Double Acting Pneumatics:

- 7.2 scfm (200 l/m) at 30 psi (2.1 bar) supply
- 12.8 scfm (360 l/m) at 60 psi (4.2 bar) supply
- 18.3 scfm (520 l/m) at 90 psi (6.3 bar) supply
- 23.8 scfm (675 l/m) at 120 psi (8.4 bar) supply

### Materials:

- I/P Motor and Relay are constructed of composite polymers and stainless steel (300 and 400 series)

### Control Valve Mounting System:

- Material:
  - 300 Series SST standard
- Valve Type:
  - Linear or Rotary Motion Control Valve
  - Single or Double-Acting Actuator
- Remote-Mount System Kit:
  - Remote position sensor assembly
  - Cabling for up to 30 meters (100')
  - 2" Pipe mount bracket

### Hazardous Area Certifications:

- FM, CSA, ATEX, JIS and Others Available
- Explosion Proof, Intrinsically Safe, FlameProof
- NEMA 4X / IP66

### Performance per ISA S75.13 – 1996:

Accuracy	+/- 0.5% Full span (typical +/- 0.10% or better Full span)
Conformity	+/- 0.5% Full span
Hysteresis + DeadBand	+/- 0.3% Full span
Repeatability	+/- 0.3% Full span
Power-Up with position control	<150ms
Power Interruption without causing reset	<100ms