



# SVI II AP Advanced Performance Digital Valve Positioner



## Key Features

- Extreme accuracy and reliability
- Universal design (linear or rotary applications)
- Field proven, non-contact position sensing
- Selectable position feedback (non-contact sensor or remote-mount position feedback)
- Position transmitter 4-20mA output
- Two configurable digital contacts
- Explosion proof external LCD & buttons
- Valve position autotune (self calibration) with user selectable valve response
- Field upgradable features and firmware
- Split-range capable with 5mA of span
- High-speed response for surge-control applications

## Digital Communication Interface Solutions

- ValVue® communication software:
  - Point-to-point with serial, USB or Bluetooth modem
  - MTL and Pepperl & Fuchs multiplexor
- Control system integration
  - Emerson®
    - AMS™ / AMS™ ValVue SNAP-ON™
  - FDT-DTM
    - FDT-DTM compatible host
  - Honeywell®
    - FDM / ValVue for Experion™ / Asset Manager PKSTM
  - Yokogawa®
    - PRM® / ValVue PRM Plug-In
- HART® configuration tools:
  - Compatible with any certified configurator using DDL technology such as Handheld 375

# SVI<sup>®</sup> II AP

## Specifications

### Safety Compliance:

- SIL2 Per IEC61508 section 2-3

### Diagnostics:

- 5 Pressure Sensors
- Total Travel & Number of Cycles
- Valve Operations (time open/time close/time near close)
- Offline Control Valve Signatures
- Online Friction with ValVue<sup>®</sup> OVD
- Field Upgradable Diagnostic Levels

### Housing Material:

- Case/Cover: Aluminum (std), 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:

- Position Transmitter: 4-20mA - 2 Wire Loop Powered with 10-24Vdc Compliance Voltage
- Two Configurable Digital Contacts: 30Vdc, 1A

### Input Signals:

- Valve Setpoint: 4-20mA, 450 Ohms Input Resistance
- DI (discrete input): Un-powered Contact Closure
- Remote Position Sensor: 10k Ohms

### Communication:

- HART<sup>®</sup> Revision 5 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 8014-2, -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 and Air Consumption

Air Supply	Output Delivery	
	Single-Acting	Double-Acting
30 psi (2.1 bar) supply	10.0 scfm (280 l/m)	7.2 scfm (200 l/m)
60 psi (4.2 bar) supply	16.6 scfm (470 l/m)	12.8 scfm (360 l/m)
90 psi (6.3 bar) supply	23.3 scfm (660 l/m)	18.3 scfm (520 l/m)
120 psi (8.4 bar) supply	34.6 scfm (980 l/m)	23.8 scfm (675 l/m)

Air Supply	Air Consumption	
	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 (8.4 bar) supply	0.529 scfm (15 l/m)	1.06 scfm (30 l/m)

### 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
- Optional Remote-Mount Position Sensor Kit:
  - Remote Position Sensor (RPS) Assembly
  - Cabling For Up To 30 Meters (100')
  - 2" Pipe Mount Bracket

### Hazardous Area Certifications:

- FM, CSA, ATEX, JIS, INMETRO, KOSHA, GOST, IEC, NEPSI and Others Available
- Explosion Proof, Intrinsically Safe, Flame Proof
- 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

