Masoneilan* SVI* II AP Positioner With Optional High Flow

Optimized Performance Regardless of Actuator Size Eliminates One Additional Booster

Key Features

• High Flow
  – For Optimized Performance Regardless of Actuator Size, Eliminating or Reducing The Need of Additional Accessories (Booster, Quick Exhaust, etc)
  – Higher Capacity Than Most Positioners Available In The Marketplace
• High-speed Response For Surge-Control Applications
• Setup Wizard For Quick and Easy Commissioning
• Field Proven Non-contact Position Sensor or Robust Remote-mount Position Feedback
• Universal Design (linear or rotary applications)
• Field Upgradable Options and Firmware
• Explosion Proof External LCD & Buttons
• Universal Label with ATEX, FM, FMc, IEC ... Approvals
• ValVue* Communication Software
• eDDL and DTM (Standard and Advanced) Support
• Integration Flexibility Through Digital Communication Interface
• Industrial Aluminum Housing

Benefits

• Faster Commissioning and Start-up of Control Valves
• Optimized Performance Regardless of Actuator Size
• Eliminates or Reduces The Need of Additional Accessories (Booster, Quick Exhaust, etc)
• Ease of Mounting and Commissioning
• Accurate and Reliable Valve Positioning
• Bi-directional Communication for Local or Remote Setup
• Integration with Many DCS and Asset Management Systems
Eliminates The Complexity Of Accessories

- Ease of commissioning due to quicker mounting, setup and reduced tubing
- Increased performance with improved auto-tuning and single instrument setting
- Reduced costs due to reduced need of accessories and quicker commissioning
How To Specify the SVI II AP High Flow

Series Identification SVI II AP – abcdefgh

Diagnostic
- 2 SD Version – Standard Diagnostics
- 3 AD Version – Advanced Diagnostics

Pneumatics
- 1 Single-Acting

Volume Capacity
- 2 High Flow Cv 2.2

LCD Interface / Housing Material
- 1 No Display and Pushbuttons, Aluminum Housing
- 2 With Display and Pushbuttons, Aluminum Housing

Electronics
- 3 Plug-in Electronics Module

Communications
- 1 4-20mA Loop Powered with - HART Communications

Options
- 1 None
- 2 Position Retransmit and Limit Switches

Hazardous Area Certification
- 1 ATEX / FM / CSA / IEC Intrinsic Safety & Explosion Proof

SVI II AP- 2 3 1 2 1 2 3 1

Masoneilan SVI II AP Positioner With Optional High Flow | 3
Specifications

**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
  – Paint: 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 and Built-in Isolated Solid-state Switches - 1A, 30Vdc

**Input Signals:**
- Valve Setpoint: 4-20mA, 450 Ohms Input Resistance
- Remote Position Sensor: 1 kOhms

**Communication:**
- HART® Revision 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:**
- -50ºC to 85ºC (-58ºF to 185ºF)

**Ambient Humidity Limits:**
- 10 to 95 percent RH Non-condensing

**EMC Conformity Standards:**
- EN 61000-4-2, 3, 5, 6, 8, IEC 1000-4-2 and EN 50140
- EMC 89/336/EEC Directive

**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-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): 1/2” NPT

**Air supply pressure:**
- Single-Acting: 20 to 100 psi max (1.4 to 6.9 bar)

**Air Delivery and Air Consumption:**

<table>
<thead>
<tr>
<th>Output Delivery</th>
<th>Air Supply</th>
<th>Single Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 psi (2.1 bar)</td>
<td>39 scfm (1104 l/m)</td>
<td></td>
</tr>
<tr>
<td>60 psi (4.2 bar)</td>
<td>70.6 scfm (2000 l/m)</td>
<td></td>
</tr>
<tr>
<td>90 psi (6.3 bar)</td>
<td>102 scfm (2888 l/m)</td>
<td></td>
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</tbody>
</table>

**Air Consumption**

<table>
<thead>
<tr>
<th>Air Supply</th>
<th>Single Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 psi (2.1 bar)</td>
<td>0.28 scfm (8 l/m)</td>
</tr>
<tr>
<td>45 psi (3.1 bar)</td>
<td>0.35 scfm (10.5 l/m)</td>
</tr>
</tbody>
</table>

**Air Delivery Comparison (Cv):**

![Air Delivery Comparison Graph]

**Certifications:**
- FM, CSA, ATEX, IEC
- Other Local Approvals Are Pending
- Explosion Proof, Intrinsically Safe, Flame Proof, nL
- Enclosure Protection: NEMA 4X / IP66
- CE MARK

**Performance**

<table>
<thead>
<tr>
<th>Performance per ISA S75.13 - 1996:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
</tr>
<tr>
<td>Linearity</td>
</tr>
<tr>
<td>Hysteresis + DeadBand</td>
</tr>
<tr>
<td>Repeatability</td>
</tr>
<tr>
<td>Power-Up With Position Control</td>
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<tr>
<td>Power Interruption without Causing Reset</td>
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</table>

[(1) For linear characteristics]

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