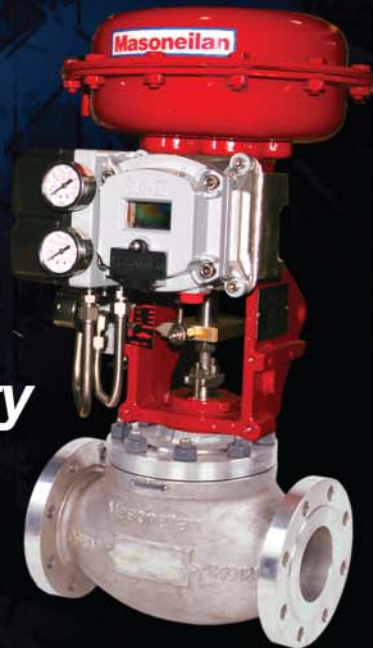


SVI[®] II AP

Advanced Performance



*An Extremely Reliable
Digital Positioner with
True System Interoperability*



Masoneilan[®]

DRESSER

SVI[®] II AP

Performance

**Superior Control Accuracy,
Resolution Sensitivity,
and Speed**

Reliability

**Effortless Installation and Years
of Reliable Service From the
Most Durable Digital Positioner**

Intelligence

**Ultimate Diagnostic Tool for
High-End Component Health and
Predictive Valve Maintenance**

Advanced **P**erformance

TOTAL PLANT REVENUE ENHANCEMENT

Interoperability - Various options are available for local or remote communications, providing users with the flexibility to implement the best solution for any process loop.

Integration Options

- Control Systems with HART® I/O
- Emerson® - ValVue 2 AMS™ SNAP-ON™
- Honeywell® - ValVue for Experion®
- Yokogawa® - PRM® Plug-In
- Others - FDT/DTM

Interface Options

- On-board LCD (Explosion Proof)
- HART® Handheld Communicators (HHC 375 and others)
- Masoneilan ValVue 2 Software

IMPROVED INSTALLATION AND START-UP COSTS

Easy Commissioning - Simple installation, combined with automated calibration and tuning functions significantly reduces set-up time and optimizes equipment performance.

- Set-up Wizard
- Auto-Calibrate
- Autotune Without Entering Valve Data
- No Special Tools or Jigs Required for Mounting
- No Sensor Over-Rotation
- One Model Fits Both Rotary and Reciprocating

BENEFICIAL IMPACT ON OPERATING COSTS

Reliability - An optimized design, leveraging Material Selection, Component Architecture and Production Processes to consistently ensure reliable performance over the life of the product.

- Minimum Number of Moving Parts
- Non-Contact, Hall Effect Position Sensor
- Vibration and Wear Resistance
- Over Power Protection
- Low Compliance Voltage
- Designed in Accordance with IEC 61508 per SIL 2

FINANCIAL RISK MANAGEMENT

Easy Predictive Maintenance - Real-time data collection and tracking allows users to accurately monitor and predict equipment performance. Proactive measures can then be implemented to prevent performance degradation.

- 7 Critical Built-In Sensors
- Non-intrusive Diagnostics for valve condition monitoring (VCM)
- Valve Trending
- Data Analysis and Interpretation
- Control Valve Signatures and Device Alarms Embedded in Non-Volatile Memory
- High Resolution Signatures with Seating Analysis
- Accurate Positioner and Valve Component Diagnostics through 5 Pressure Sensors
- Continuous Online Health with Alarms Provided via HART and Discrete Out
- Local Fault Indicator of Active Alarms on LCD



Best Fit Technology

LOOP REVENUE ENHANCEMENT

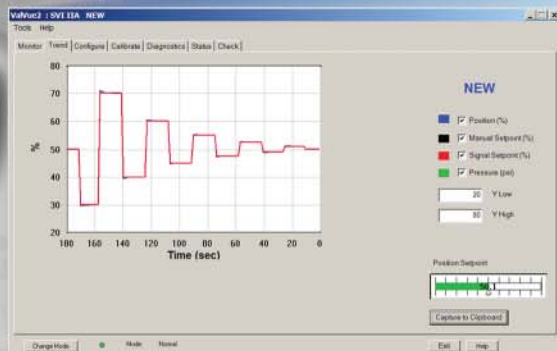
Reduced Process Variability - The SVI II AP advanced performance Autotuning function results in very tight, accurate valve positioning, and reduced process variability, while increasing process yields and product quality.

- Pushbutton Positioner Autotuning
- Enhanced Dynamic Performance
- Custom Flow Characterization
- Valve Trending
- Position Error Alarm
- Enhanced Autotune
- Power-up less than 150ms

REDUCED MAINTENANCE COSTS

Robust Construction - The rugged design is modular in construction providing superior performance and extended service life under extreme conditions, lowering total maintenance expenditures.

- Housing Designed with Captured Cover Seals
- Stainless Steel Housing Option
- Separate Field Replaceable Modules
- Water Tight Electronics Module
- Explosion Proof and Water Tight Pushbuttons Module
- Gauges with Stainless Steel Cases



Advanced **P**erformance



PERFORMANCE



RELIABILITY



INTELLIGENCE

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

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® 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

Digital Communication Interface Solutions:

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

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