SV Series Digital Positioner for Process Control

Valve & Damper Position Control

Exlar's SV Series Positioner is designed specifically for use with Exlar rotary and linear actuators to control valve and damper applications.

SV Series Digital Positioner

The all-electric design eliminates the complexity of applying electro-hydraulic interface pilot valves or electric-pneumatic positioners. All digital control allows your system to interface directly with Exlar's actuators such that full two-way communication is provided.

SV Series Positioners operate from standard process control communication standards allowing for simple retrofits of existing fluid power actuators. Position is controlled in proportion to an analog input signal allowing a conventional 4-20 mA interface to DCS or PLC systems. Alternatively the SV Series can interface digitally via its RS485 port using ModBus protocol. Commands are reacted to within 5 mSec assuring that the system's overall response meets the exacting needs of the application. Resolver feedback on the actuator assures reliable, shock and heat resistant sensing of the actuator's linear or rotary position. The SV Series Positioner also offers the flexibility of operating with a secondary feedback device providing absolute position capability eliminating the autocalibration function required with each power-up.

Standard Features

- Linear or rotary actuator control
- Position control proportional to analog or digital commands (Modbus)
- Analog or digital output proportional to actual position
- 24 Volt digital inputs and outputs
- ASCII or Modbus protocol serial communication
- High accuracy valve seating algorithm
- Auxiliary analog control capability
- Programmable seating force.

Optional Features

- Absolute positioning (with optional absolute sensor)

Output Rating

	Current				
	RMS	**Peak**	**Power**	**Voltage In**	
	Amps	*Amps*	*Watts*	*VDC*	*VAC*
SV2008	8	15	2 kW	--	71-240, 3 phase
	7	15	2 kW	100-350	71-240, 1 phase
SV2008-24	8	15	2 kW	20-50	--
SV2015	15	30	2.5 kW	100-350	71-240, 3 phase
	7	30	2.5 kW	--	71-240, 1 phase
SV2015-24	15	30	2.5 kW	20-50	--
SV2035	35	70	6 kW	100-350	71-240, 3 phase
	20	70	6 kW	--	71-240, 1 phase
SV4008	10	15	3 kW	250-760	180-540 3 phase only
SV4020	20	30	7 kW	250-760	180-540 3 phase only
SV4050	50	100	18 kW	250-760	180-540 3 phase only

SV Series Specifications

Analog Inputs

Position Command or Sensor Signal: 12 bit (4096 increments) over range of 4-20mA, 0 to 10 VDC or +10 VDC

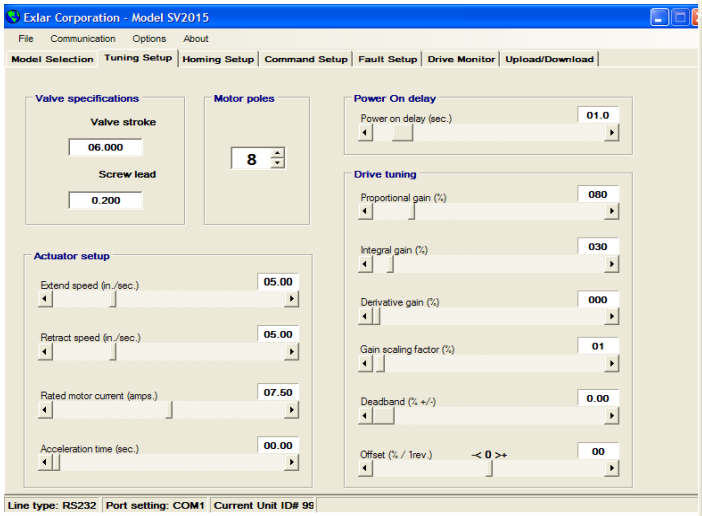
Absolute Feedback: 12 bit (4096 increments) over range of 0-5 VDC

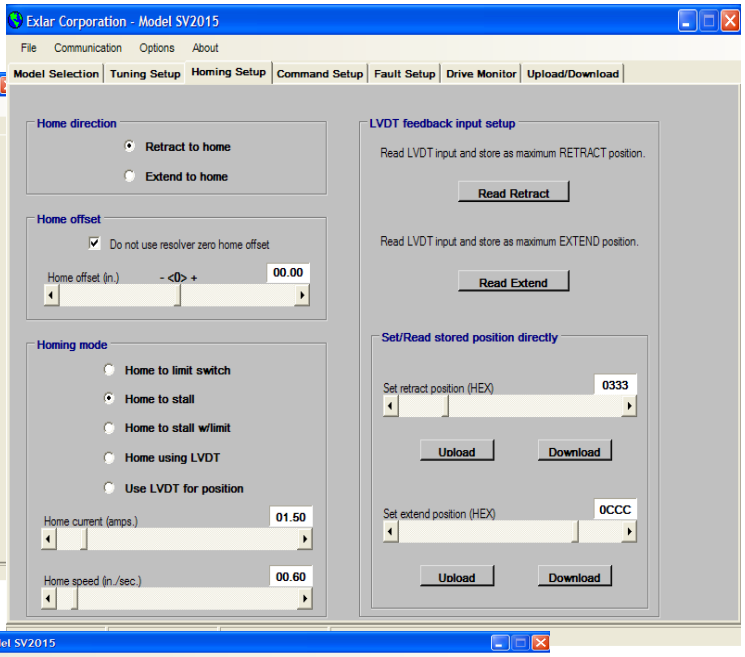
Auxilliary: Set Point Control, 12 bit (4096 increments) over 0 to 10 or + 10 VDC

Analog Output
Current Position: 12 bit (4096 increments) over 0-20mA
Digital Inputs: Enable operation, Go/To Emergency Position, Fault Reset, Home Limit, Home Initiate, Motor Thermal Switch.
Digital Outputs: Programmable Warnings, Fault

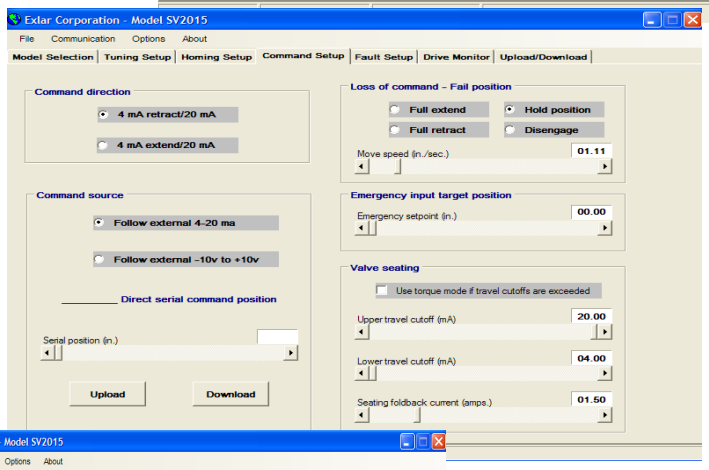
Serial Port: RS485 Standard; RS232 with Converter Box (available from Exlar) ASCII and Modbus protocol.
Resolution of Control: 12 bit (4096 increments) per motor revolution times the pitch of lead (turns of the lead per inch of increment) for linear actuators or times the gear reduction ratio for rotary motion.
Environmental Rating: NEMA 1
Weights: SV2008/2015 - 5 lbs (2.3 kg), SV4008 - 9lbs (4.1 kg), SV2035/4020 - 15 lbs (6.8 kg), SV4050 - 52 lbs (23.6 kg) SV4050 - 52 lbs.

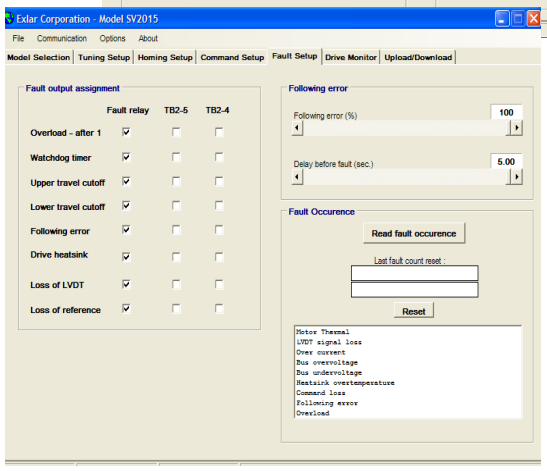
Valve Set-up and Control Software





Windows™ based, simple slide bar adjustments make set-up and operation possible in just minutes.





Tuning/Actuator Set-up
- Valve Stroke
- Extend & Retract Speed
- Current Limit
- Acceleration
- Power on Delay
- Tuning Parameters
- P, I & D Gains
- Loop Gain Scaling
- Deadband and Offset

Auto Calibration/Assist Feedback Set-up
- Home Direction
- Homing Mode
- Home Current & Speed
- Absolute Positioning Set-up
- Digital Position Command

Command/Valve Set-up
- Extend and Retract Directions
- Analog vs. Serial Control Set-up
- Loss of Signal Mode
- Velocity Scaling
- Valve Seating Parameters

Diagnostics
- Fault Output Assignment
- Following Error
- Fault Occurrence