



Expanding the Envelope of Intelligent Automation™

Sunstream Scientific's Pneumatic Servo Actuator (PSA) is a comprehensive pneumatic servo system, comprising three core components: a patent pending ultra-high bandwidth pneumatic servo valve, integrated digital motion controller with Windows based GUI programmability, and a patented pneumatic actuator.



Multiple communication options allow the PSA to be easily integrated into multiple axis industrial machinery; or choose the "PLC" option to operate the PSA as an independent system with eight 24V compatible logic inputs, and four 24V compatible outputs capable of driving 100mA industrial relays.

Motion control professionals will find the PSA's features easy to implement via the Windows based GUI software or the optional handheld or panel mount HMI.

Features

- Advanced Digital Feedback Controller with integral position trajectory generator.
- Adjustable gains, acceleration, and velocity settings.
- Soft or Stiff mode operation.
- Smooth transition between Position, Force, or Flow control operation modes.
- Soft Touch – intelligent Position to Force "bumpless transfer" – capability.
- Program up to 128 position points.
- 12 bit parallel I/O, RS-232 or CAN2.0B communications.
- Additional PLC option with 8 inputs and 4 outputs for "stand alone" operation.
- Write and store up to three (3) motion programs through the custom GUI.

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	PSA125	PSA200	PSA325
Physical Characteristics			
Weight (lbs.)	6.53 + 0.24 x stroke	9.11 + 0.45 x stroke	12.14 + 0.84 x stroke
Valve Function	5 Port Bi-directional Spool Valve, Normally Closed Center		
Valve Type	Lapped Spool and Sleeve		
Valve Actuator	Force Motor		
Ports	3/8" NPT (one pressure and two exhaust)		
Electrical Characteristics			
Supply Voltage	22-30 VDC		
Max. Current Draw	2 A		
Electrical Connector (Power)	M16 - 4 pin male		
Electrical Connector (Comm.)	M16 - 6 or 14 pin male		
Performance Characteristics			
Max. Velocity	80 in/s		
Max. Acceleration	9 g's		
Max Force (ext./ret.) @ 80 psi	98/74 lb.	251/227 lb.	663/601 lb.
Max Force (ext./ret.) @ 100 psi	122/92 lb.	314/283 lb.	829/751 lb.
Positional Repeatability	Up to 0.0005"		
Air Quality Requirements	Clean, dry, non-lubricated air, 5 micron filter		
Max. Air Pressure	100 psi standard - for higher pressures, contact factory		
Lubrication Requirements	Not recommended and will void warranty		
Environmental Characteristics			
Protection Class	IP67		
Temperature	32 - 140 degrees F (0 -60 C)		

