

S2

Servo Pneumatic Proportional Control System



Simple by design, the S2 is an all in one pneumatic positioning system capable of tackling high speed and high force applications while linearly positioning a cylinder anywhere along its stroke.

Features

- Easy Tuning
- Simple Setup and Wiring
- Wide Range of Input Pressures
- Minimized Air Consumption
- All-in-One Package

Applications

- Line and Hopper Feed Rate
- Edge Guide Position
- Case Erect and Pack
- Pick and Place
- Lane Divide and Divert
- Gripper Position Control
- Quality Control Sorting
- Component Placing
- Actuate and Pilot Process Valves
- Material Processing
- Level and Elevator Control
- Sluice Gate Control
- Rotary Indexing and Positioning

Compatibility

Add position and control to almost any application.

Typical compatibility:

- Double Acting Non-Repairable Cylinders
- ISO & Tie Rod Cylinders
- Grippers & End Effectors
- Vane or Rack & Pinion Rotary Cylinders

Mechanical Specifications

- Pressure:**
0...10 bar (0...150 psig)
- Ports:**
¼ in NPT
- Connector:**
5-pin M8 x 1 (male)
- Mounting:**
2 x 10-32 Thru Holes
- Temperature Range:**
32°F - 104°F (0°C - 40°C)
- Filtration:**
5 µm particulate
0.3 µm coalescing
- Media:**
Unlubricated, Dry, Neutral Gas
- Height:**
5.0 in (126 mm)
- Width:**
2.5 in (64 mm)
- Length:**
2.75 in (68 mm)
- Weight:**
2.0 lbs (0.91 kg)

Material Specifications

- Body:**
Aluminum 6061
- Caps:**
PA66 30% Glass Filled Nylon
- Other:**
Nitrile, 440C SS, Nickel Plated Steel

Electrical Specifications

- Power Requirement:**
24 VDC nominal @ 20W
(+12...24 VDC range)
- Command Input Impedance:**
100kΩ
- Feedback Input Impedance:**
100kΩ
- Command Input:**
Configurable 0...10 VDC; 4...20mA
- Feedback Input:**
Configurable 0...10 VDC; 4...20mA
- Electronic Adjustments:**
Potentiometers;
Pin jumpers set analog input signal types
- Status Indications:**
2 power and status LEDs
- Excitation:**
+10V (15mA max)

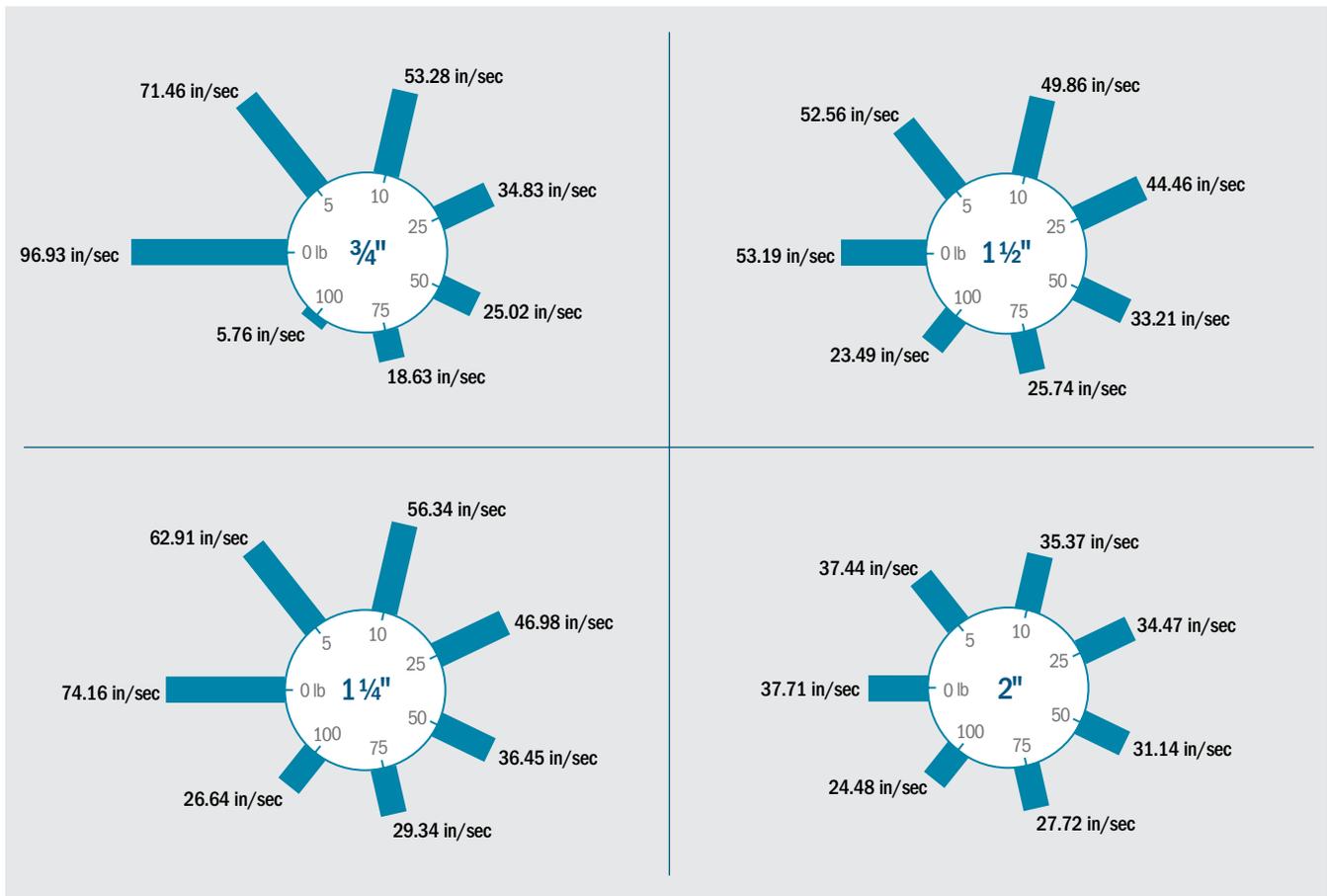
Performance Specifications

- Position Accuracy:**
± 1%
- Flow:**
46 SCFM 80 → 0 psig
(820 SLPM 6 → 5 bar)
- Leak Rate:**
12 SCFH 150 → 0 psig
(5.7 SLPM)

Servo Pneumatic Proportional Control System

The **S2 Servo Pneumatic Proportional Control System** is ideal for applications requiring high speed and high forces simultaneously. Speeds up to 100 in/sec are achievable while slowing the cylinder to a smooth controlled stop, preventing premature cylinder wear and damage. Handling 100+ pound loads, it is capable of 25 in/sec across a selection of cylinders. The ability to handle heavy loads while quickly and accurately following a changing input signal makes the S2 the ideal choice for machine designers.

Maximum Cylinder Speed vs Moving Mass: Bore Size Comparison



Note: Tests performed at 80 psig inlet pressure with 10 in horizontal movements. Changes in moving mass, cylinder orientation or other system parameters will impact maximum speed.