



The S2 family of pneumatic cylinder positioning systems makes stopping an air cylinder at unlimited midstroke positions easy. Combined with a regular air cylinder and position feedback, the S2 family delivers proportional position control at a fraction of the cost of electric actuators.

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 Positioning
- 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 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

Operating Pressure:

0...10 bar (0...150 psi)

Ports:

S2-005 Versions: 1/8" NPT Ports
S2-025 Versions: 1/4" NPT Ports

Connector:

5-pin M8 x 1 (male)

Mounting:

2 x M5 (10-32) Thru Holes

Operating Temperature:

0...50C (32- 122F)

Media:

ISO 8573 Class 2.3.2

Filtration Components (Typical):

5 µm Particulate, 0.3 µm Coalescing & Drier

Height x Width x Length:

S2-005 Versions: 71.4 x 52.3 x 58.9 mm
(2.81 x 2.06 x 2.32 in)

S2-025 Versions: 126 x 64 x 68 mm

(5.00 x 2.50 x 2.75 in)

Material Specifications

Body:

Aluminum 6061

Caps:

PA66 30% Glass Filled Nylon

Other:

Nitrile, 440C SS, Nickel Plated Steel

Electrical Specifications

Power Requirement:

12 ± 2 VDC

24 ± 4 VDC @ 20W

Command Input Impedance:

0...10VDC: 100kΩ

4...20mA: 210Ω

Feedback Input Impedance:

0...10VDC: 100kΩ

4...20mA: 210Ω

Command Input:

Configurable 0...10 VDC; 4...20mA

Feedback Input:

Configurable 0...10 VDC; 4...20mA

Electronic Adjustments:

USB-Connectable User Interface

Status Indications:

2 Power and Status LEDs

Excitation:

+10V (15mA max)

Performance Specifications

Positional Accuracy:

± 0.1...1% of Full Scale (typical)

Flow:

S2-005 Versions: 170 SLPM 5.5 → 0 bar
(6 SCFM 80 → 0 psi)

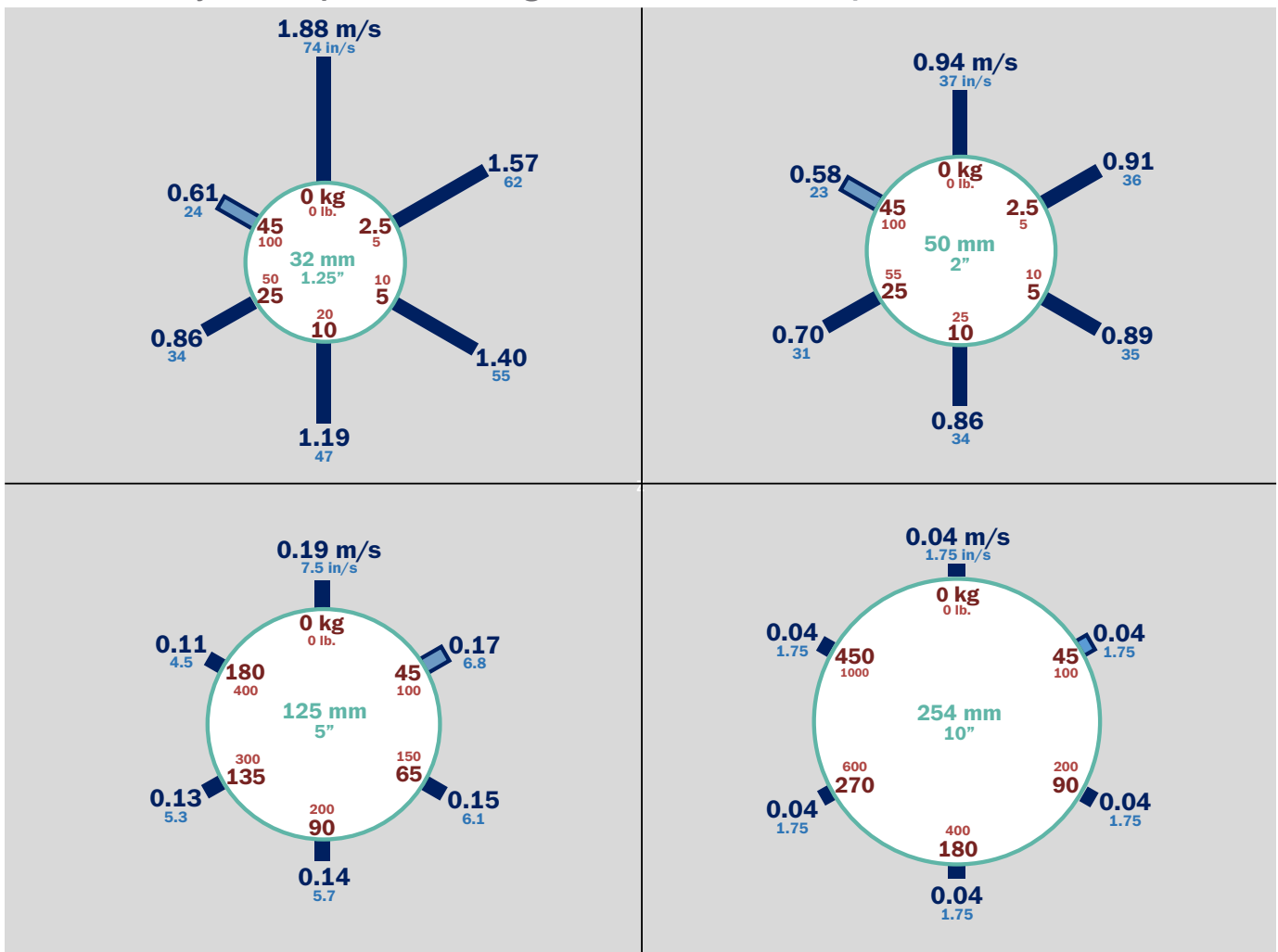
S2-025 Versions: 1300 SLPM 5.5 → 0 bar
(46 SCFM 80 → 0 psi)

Leak Rate:

5.7 SLPM 10 → 0 bar
(12 SCFH 150 → 0 psi)

The **S2 Servo Pneumatic Proportional Control System** is ideal for applications requiring high speed and high forces simultaneously. Speeds up to 2.0 m/sec are achievable while slowing the cylinder to a smooth controlled stop, preventing premature cylinder wear and damage. Handling 50+ kilogram masses, it is capable of 0.5 m/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: Based on test results from typical setup: O25 Version. 250mm stroke guided horizontal cylinder with 5.5 bar inlet pressure. Changes in moving mass, cylinder orientation or other system parameters will impact maximum speed. Figures are to be used for general guidance only.

Enfield Technologies
35 Nutmeg Drive
Trumbull, CT 06611
USA

+1 203 375 3100

enfieldtech.com