ELECTRO PNEUMATIC POSITIONING SYSTEM - EPPS

PNEUMATIC POSITIONING WITH STANDARD “OFF THE SHELF” COMPONENTS

Unlike most pneumatic positioning systems on the market, which control the position of the actuator with directional flow, AVENTICS utilizes our expertise in direct acting proportional pressure regulators. This principle of operation can be applied equally well in both piston rod and rodless pneumatic cylinders in a considerable range of bore sizes and strokes.

Features and Benefits

- System offered in a variety of actuators, both piston rod and rodless cylinders
- Externally mounted sensor eliminates need for gun drilled piston rod
- Proportional pressure control - not flow control
- Constant pressure regulation eliminates drift compared to the use of flow control
- Simple analog command for stroke set-point
- 0-10Vdc & 4-20mA standard
- 100% duty cycle (No worries about cycle rate and overheating)

Direct Acting Proportional Pressure Regulators

- Electro-Pneumatic pressure regulators are an essential interface between controller and actuator positioning
- Continuous compressed air connection
- Analog command and feedback 0-10Vdc or 4-20mA
- Plug and Play (no E/P adjustment required)
- Resolution = 10 bit / 50 micron max. particle size

Wide variety of standard cylinder choices for EPPS

- ISO 15552 PRA (profile) and TRB (tie rod) cylinders
  - 32mm to 125mm bore sizes, strokes up to 1000mm for positioning
- NFPA aluminum TaskMaster® cylinders
  - 1-1/2” to 4” bore profile type, 5” & 6” bore tie rod type
- ISO 15552 ITS large bore cylinders
  - 160mm to 320mm bore sizes, strokes up to 500mm
- RTC rodless cylinders (Int. guided, Compact or Heavy Duty versions):
  - 6 bore sizes, 25mm – 80mm, strokes up to 1 meter

Series SM6 and SM6-AL Cylinder Position Sensors

- Series SM6 for cylinders having 6mm T-Slot - with measurement lengths up to 10.08” (256mm)
- Series SM6-AL with measurement lengths up to 39.65” (1007mm) for use with ISO 15552 profile cylinders Series PRA
- Repetitive Precision = 0.06% full scale, user-teachable measurement range
- Analog outputs 0-10V and 4-20mA on each sensor

Solutions

Position Controller

- Single part number for all configurations
- Analog command and feedback 0-10Vdc or 4-20mA
- Easy set-up, field adjustable
- No programming required, 12 bit resolution
EPPS Schematic Piston Rod

Feedback from SM6-AL Sensor

Command Signal
Cap End ED02

Analog Input from PLC
0-10Vdc or 4-20mA

Standard Filter Regulator

EPPS Schematic Rodless Cylinder

Feedback from SM6-AL Sensor

Command Signal
ED02 - A

Analog Input from PLC
0-10Vdc or 4-20mA

ED02 - B

Standard Filter Regulator