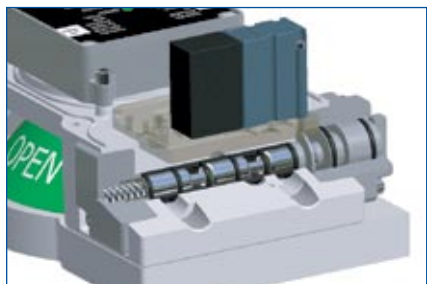


Pneumatic Control

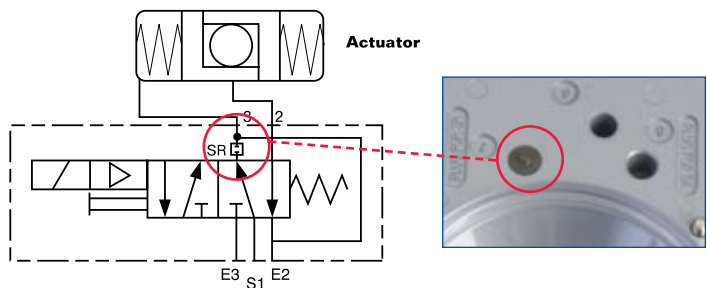
The AXIOM's pneumatic valve system consists of a low power pilot that drives the main high flow spool valve. Pilots may be selected for conventional, intrinsically safe or bus networking applications. Both stages of the pneumatic valve system have been designed for long life, high tolerance to air line contaminants and ease of maintenance should components become fouled.



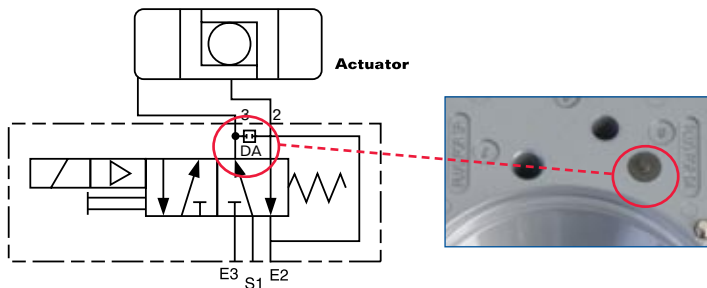
Special Features

- Pilot poppet and main spool design offer long life, exceptional tolerance to dirty air and tight shut-off.
- Spool and pilot valve may be conveniently removed and cleaned should large contaminants become lodged in the valve.
- Universal solenoid may be used for standard AC or DC applications.
- 5-way, 2 position spring return configuration may be used for either single or double-acting actuators. Dual coil shuttle piston versions are also available for fail in last position.
- Low power consumption of solenoid reduces current flow on bus networks enabling more units and longer distances on a single segment.
- Rebreather channels exhausted air from pressurized side of actuator into spring side preventing ingestion of contaminated air from the environment that may corrode springs or actuator internals.
- Standard internal manual override enables convenient setup.

Spring Return Actuator



Double Acting Actuator



Pneumatic Valve Specifications

Valve Design	Pilot operated spool valve
Pilot Operator Options	Solenoid Coil or Piezo ¹
Configuration	
Single Pilot	5-way, 2 position spring return
Dual Pilot	Shuttle piston, 5-way, 2 position
Flow Rating	0.70 Cv (Kv=0.60 based on flow unit m ³ /h)
Porting	1/4" NPT
Operating Pressure	40 to 120 psi (2.7 to 7.5 bar)
Filtration Requirements	40 micron (Piezo, 30 micron)
Operating Temperature ²	See pilot specifications below
Operating Life	1 million cycles
Manual Override	Internal momentary
Material of Construction	
Spool	Nickel Plated Aluminum
Body	Epoxy coated anodized aluminum
O-Ring Spacers	Polysulphone
End Caps & Fasteners	Stainless Steel
O-Rings	Nitrile Compound

Piezo Pilot¹

Filtration Requirements	Dried/30 micron
Operating Temperature	-10° to 60° C (14° to 140° F)
DC Power	2 mA @ 6.5 VDC

Solenoid Pilot²

Electrical Ratings	
H option	0.6 watt @ 22 VDC min., up to 130 VAC max.
E (I.S.) option	0.5 watt
Operating Voltage Range	12-15 VDC
D option	0.5 watt @ 24 VDC
AC Current Consumption	18 mA (1H or 2H)
Operating Temperature	-18° to 50° C (0 to 122° F) ²
IS Entity Parameters	U _i = 28 VDC
	l _i = 120 mA
	C _i = 0
	L _i = 0
	P _i = 1.0 watt

1 Piezo used for bus powered Foundation Fieldbus applications only.
 2 Extended temperature when "-T" suffix specified with model number:
 NEC (A Enclosure) = -40° to 80° C (-40° to 176° F)
 IEC (V Enclosure) = -40° to 70° C (-40° to 158° F)

Dual pilot options may be selected for special applications such as shuttle piston for fail in last position. External manual override options are also readily available. For special valve configurations with non-standard manual override features please consult STONEL.

