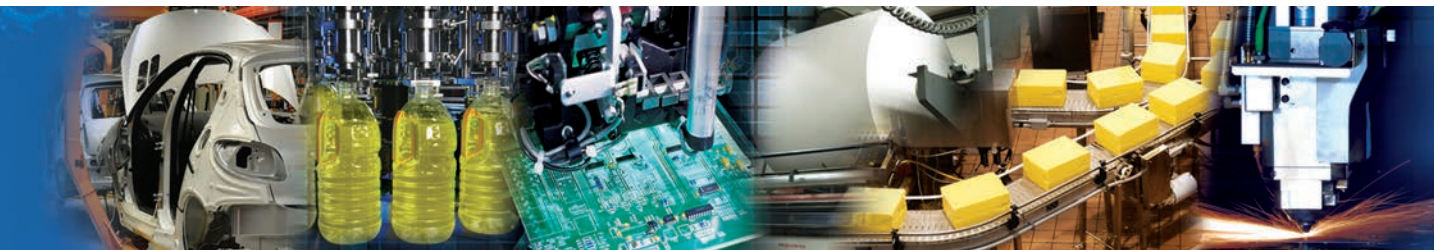
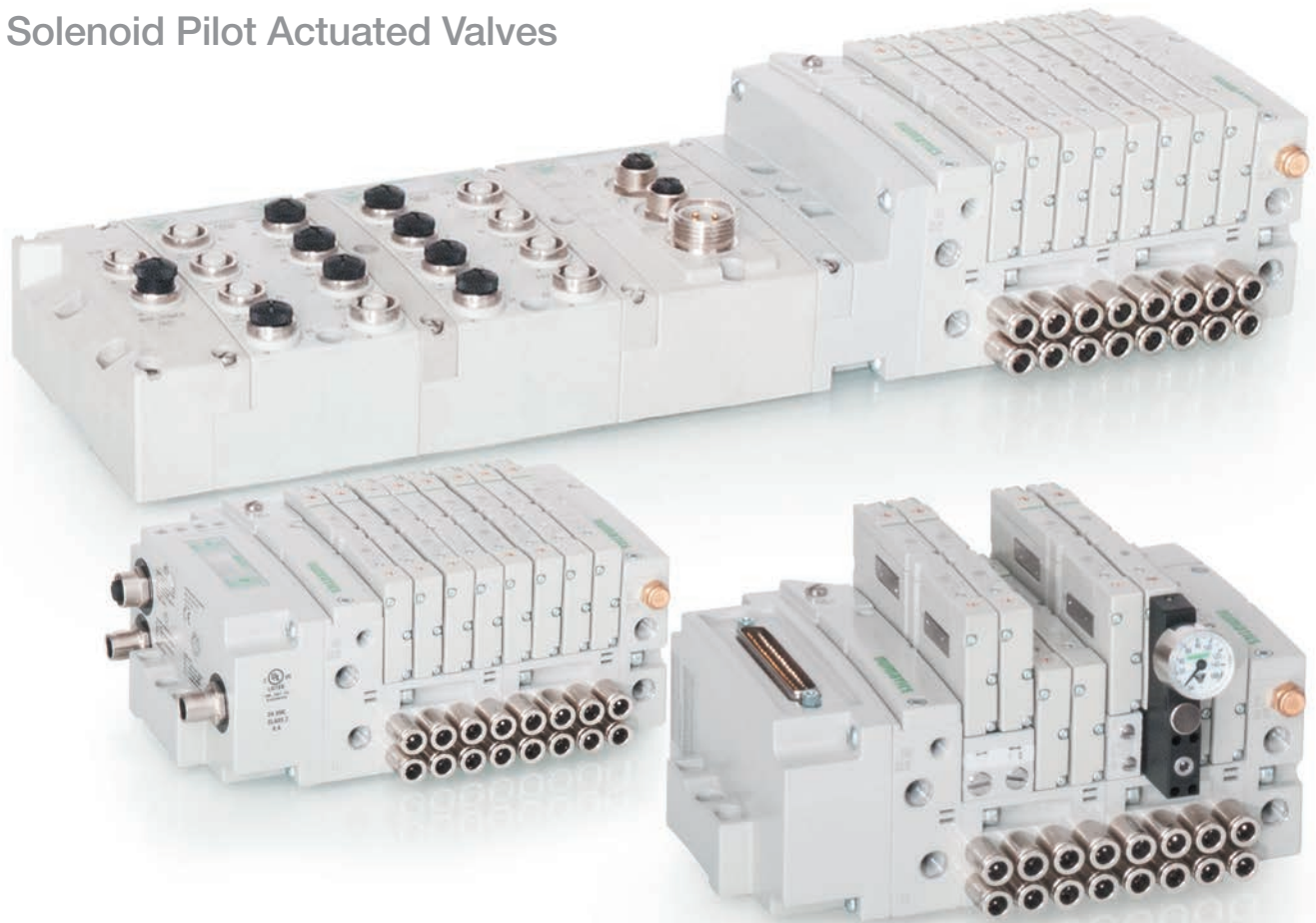


# numatics®

## 501 Series

Solenoid Pilot Actuated Valves



[www.numatics.com](http://www.numatics.com)

## 501 Series – Directional Control Valve Platform

### Featuring Higher Flow in a Compact Valve Package

#### Commissioning Capabilities

- Solenoid air pilot actuated
- Low wattage .8 wall for DC application
- DC solenoids Polarity insensitive with surge suppression
- Plug together circuit boards eliminate internal wiring
- Integral recessed gaskets
- IN Fittings to accommodate various tube sizes
- Simple conversion from internal to external pilot
- IP65 Certified



#### Sandwich and Manifold Accessories

- Pressure Regulators for supply pressure control at individual valve
- Speed control to control exhaust flow allows for control of actuator extend or retract speed
- Shut off block for individual valve to be isolated from pressure supply during operation and repair
- Mid Station Supply Manifold block allows for multiple pressure zones (with blocking discs) or additional air supply to a manifold



#### Fieldbus Electronics Compatible

- G3 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - 32 valve solenoids per manifold
  - Easy distribution of additional manifolds through Sub-Bus communication
  - One Node supports up to 16 I/O modules
  - Available with Auto Recovery Module (ARM) which allows configuration information to be saved and reloaded to replacement module automatically
- 580 Fieldbus Electronics
  - Graphic Display for easy commissioning, visual status & diagnostics
  - 32 valve solenoids per manifold



## Performance Data

Valve Data	Min.	Max.
Pilot Pressure Range	29 PSI (2 Bar)	115 PSI (8 Bar)
Valve Operating Pressure Range	28" HG Vacuum	115 PSI (8 Bar)
Ambient Temperature Range	- 10°C (- 14°F)	50 °C (122 °F)
Proprietary		
Valve Flow Data	Cv	NL/m (6 - 5 Bar)
5/2, Double Solenoid & Single Solenoid, Spring Return	0.46	460
2X 3/2 NC-NC	0.45	450
2X 3/2 NO-NO	0.45	450
Double Solenoid, 3 pos. 4 way, Spring Centered- Open to 4 and 2 in center	0.46	460
Double Solenoid, 3 pos. 4 way, Spring Centered - Open Center	0.46	460
Double Solenoid, 3 pos. 4 way, Spring Centered - Closed Center	0.46	460

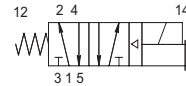


## Operating Data

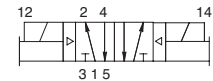
All Solenoids Are Continuous Duty Rated	24 VDC
Power (Watts)	0.8

Response Time (ms)	Rubber Seal	
	Energize	Deenergize
5/2, Single Solenoid, Spring Return	14	29
5/2, Double Solenoid	11	N/A
5/3 Spring Centered	15	20
2x3/2 NC	18	18
2 X3/2 NO	18	18

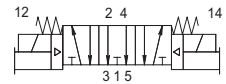
single solenoid air pilot  
2 position 4-way



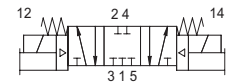
double solenoid air pilot  
2 position 4-way



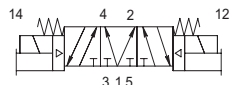
double solenoid air pilot  
3 position 4-way  
open center



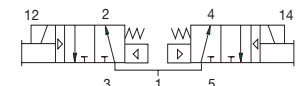
double solenoid air pilot  
3 position 4-way  
closed center



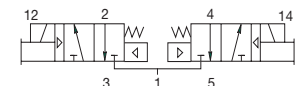
double solenoid air pilot  
3 position 4-way  
pressure center



double solenoid  
2 position dual 3-way  
"14" & "12" NO



double solenoid  
2 position dual 3-way  
"14" & "12" NC



## How to Order

### Valves

**R 501 A 2 B 4 0 M A00 F1**

**Product Series**

501 = 11 mm Valve

**Revision**

A = Initial Release

**Actuation**

2 = Rubber Packed

**Valve Type**

B = Solenoid Pilot with Flush Non-Locking Override

**Function**

- 1 = 2 Position 4-Way (5/2), Spring Return
- 4 = 2 Position 4-Way (5/2), Dual Solenoid
- 5 = 3 Position 4-Way (5/3), Open Center, Dual Pressure
- 6 = 3 Position 4-Way (5/3), Blocked Center
- 7 = 3 Position 4-Way (5/3), Open to A & B in Center
- A = Dual 3-way, A normally open - B normally open
- D = Dual 3-way, A normally closed - B normally closed
- N = Differential Air Return w/o Spring

**Voltage**

F1 = 24 DC

**Options**

- A00 = Standard (No Options)
- 11B = Flush Locking Manual Override
- 11M = Without Manual Override

**Electrical**

M = Plug-in, w/ Light, VDC

**Port Size**

0 = No Port Size

### Regulators

**R 501 A R S 5 1 J A00 1 0**

**Product Series**

501 = 11 mm Valve

**Revision**

A = Initial Release

**Product Type**

R = Regulator

**Regulator Type**

S = Single Reg. - Pressure to Port 1

**Interface**

1 = Proprietary

**Options**

- A00 = Standard (No Options)
- 12H = Regulator Less Gauge
- 18V = Regulator with Gauge in Offset Port

**Wiring Option**

J = Plug-In, Receptacle Assembly

**Gauge Type**

1 = PSI

**Pressure Range**

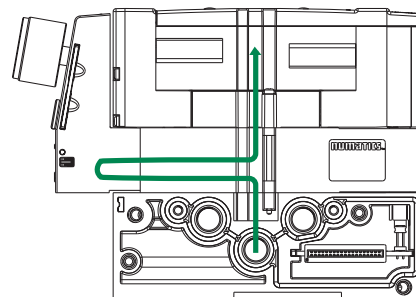
5 = 10 - 115 PSIG

## Sandwich Pressure Regulators

### Type: RS



### Type RS



Single pressure from a single supply

