3/2 Pneumatic Solenoid Valve

Aluminum Alloy Body | 3 Way, 2 Positions | 1/8" to 1/2"

ATLANTIC VALVES

3V SERIES

Features

- Designed with 3-way flow control that directs media between the supply and work port, with a dedicated exhaust port for reliable and efficient operation
- Single-solenoid operation with air return function for proper reset
- Incorporated with advanced technology to reduce response time, resulting in enhanced actuation speed and precise pneumatic circuit control
- Reliable coil design engineered for continuous duty operation in demanding industrial environments
- Compact body design ideal for tight spaces
- Can be mounted in vertical or horizontal orientation
- Durable aluminum alloy body suitable for demanding industrial environments and harsh operating conditions
- Well-suited for applications in which a single-acting actuator is responsible for controlling the direction of flow
- Suitable for diverse industrial environments, especially manufacturing and automation, where precise pneumatic control is critical
- Supplied with NPT threaded connections for secure, leak-tight installation and compatibility with standard piping systems

Industrial Applications

- Conveyor Air Control and Sorting Mechanisms
- Controlling Single-Acting Air Cylinders for Filling, Capping, Labeling, or Sealing Operations
- Actuation of Pneumatic Fingers, Grippers, or End-effectors
- Pilot Control in Low-Flow Pneumatic Circuits
- Mini Air Distribution Manifolds
- Air Damper Control
- Small-scale Pneumatic Testing Equipment
- Pneumatic Actuators in Assembly Lines
- Pneumatic Actuator Breather System
- Compressed Air Pilot Lines

*These are not intended for use in medical life support, combustion, aviation, aerospace, automotive or similar applications

Approvals

- CE certified for EMC Compliance. Meets EN 61000-6-3:2007 + A1:2011, EN 61000-6-1:2007, EN 61000-3-2:2014, EN 61000-3-3:2013

Materials of Construction

Valve Parts	Material
Body	Aluminum Alloy
Seal	NBR

*Consult a chemical compatibility expert for correct seal and valve body material choice.

Electrical Data

Pipe Size (in)	Power Rating (Holding)		Coil Connection	Coil Class	Protection Class
	AC, 60 Hz VA	DC Watts			
	110V	24V			
1/8	3	2.8	DIN40050	F	IP65
1/4	4	3			
3/8	4	3			
1/2	4	3			

(1) Valves are designed to be normally closed (NC)
(2) Valves are suitable for continuous energization (100% duty cycle) within rated voltage and ambient temperature limits. Please note that the maximum operating frequency is 5cycles/second
(3) AC power ratings shown represent steady state (Holding) VA at rated voltage, 50/60 Hz, and 40 °C (104 °F) ambient temperature
(4) Electrical values are nominal with a tolerance of ±10 % unless otherwise specified

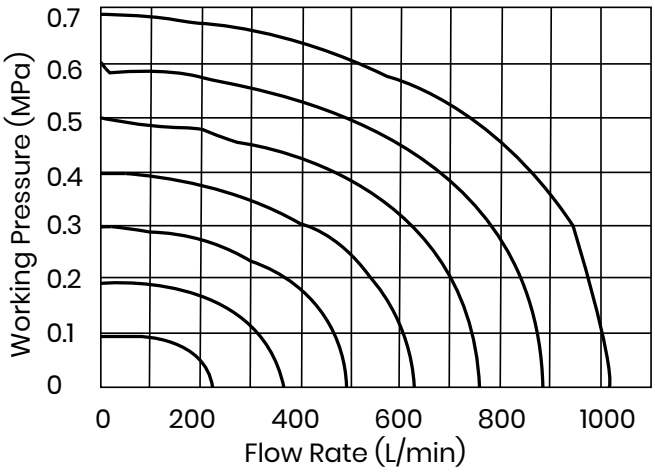
Specifications

Product SKU	Pipe Connection		Flow Coefficient Value, Cv	Operating Pressure (psi)			Operating Temperature (°F)	
				Min	Max			
	Size (in)	Thread Connection			AC	DC	Min	Max
					110V	24V		
3V110-06	1/8	NPT - Female	0.67	22	116	116	-4	158
3V210-08	1/4	NPT - Female	0.89					
3V310-10	3/8	NPT - Female	1.68					
3V410-15	1/2	NPT - Female	2.79					

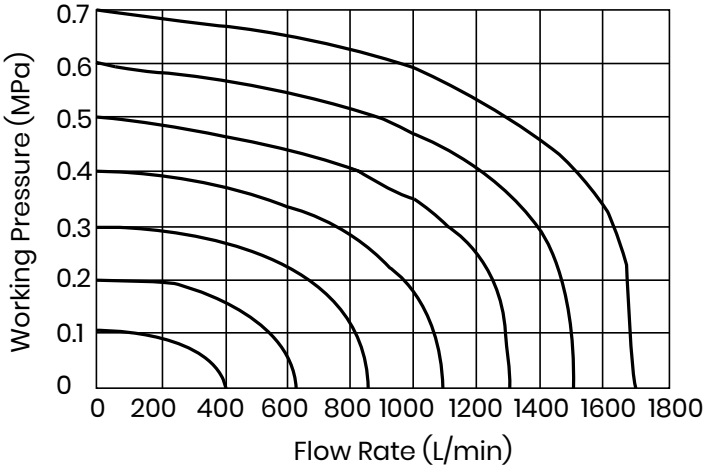
*Valves are designed to be normally closed (NC)
**This valve is not permitted for applications under freezing temperature

Flow Chart

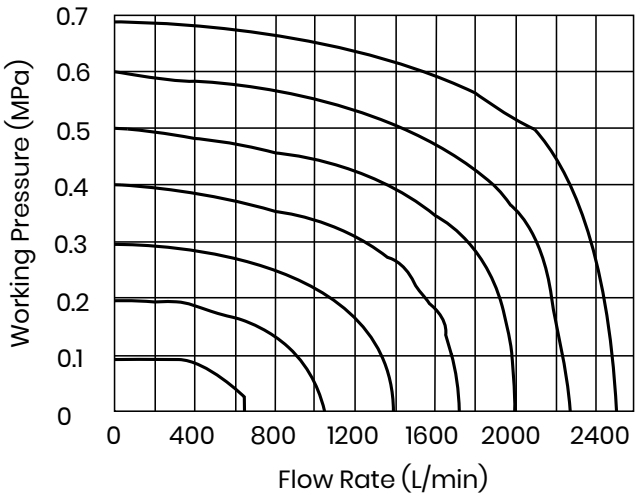
3V110-06



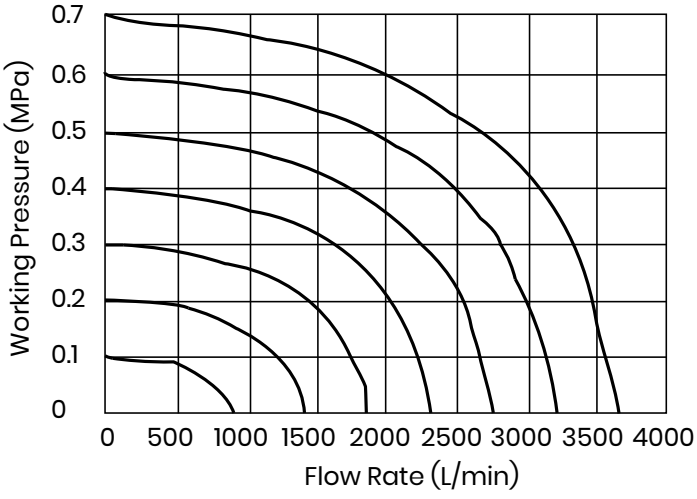
3V210-08

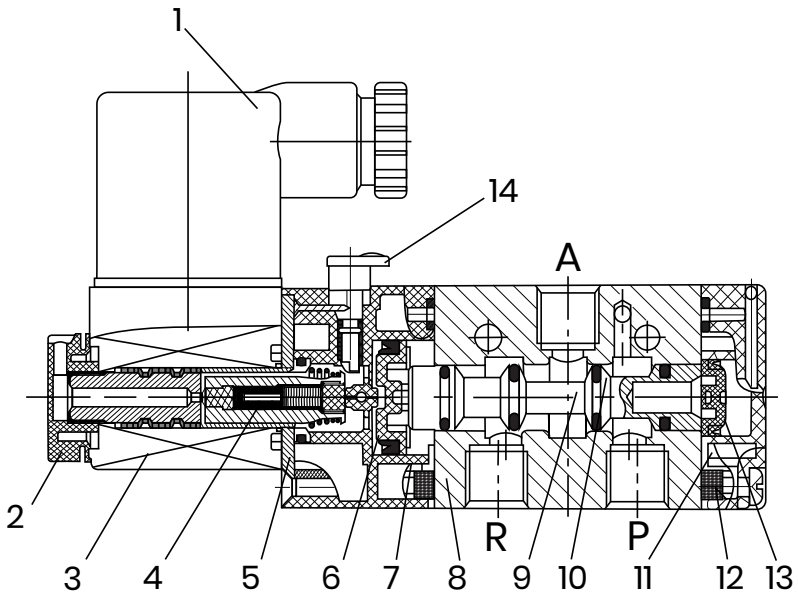


3V310-10



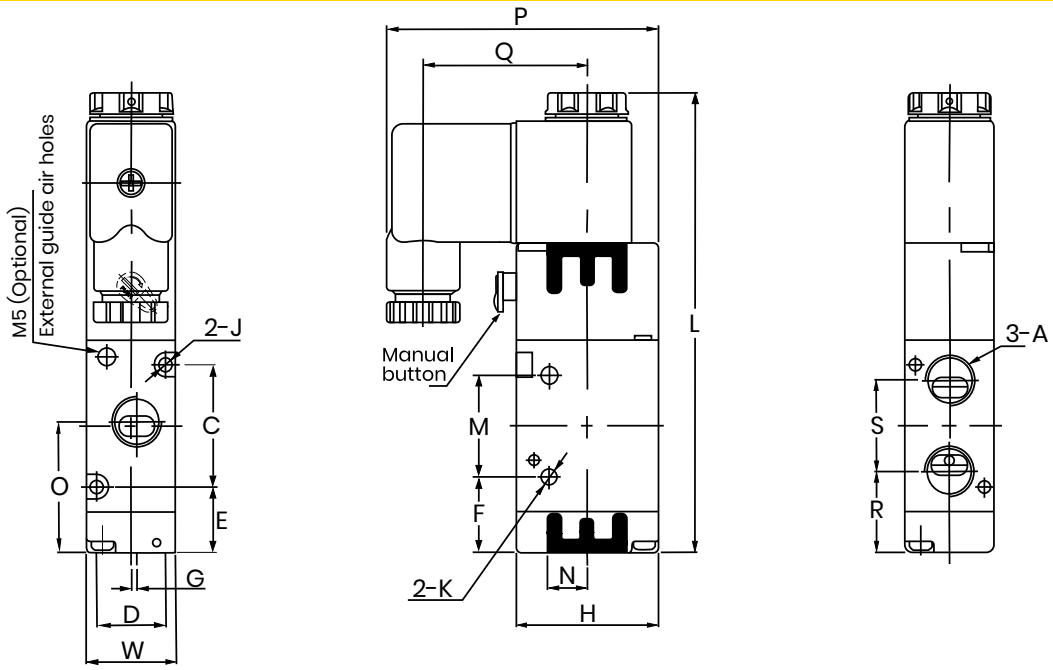
3V410-15





Bill of Materials

No.	Valve Parts	Material
1	**Connector**	Engineered Plastics
2	**Nut**	POM
3	**Coil**	Cu + Thermosetting Resin
4	**Pilot Units**	Pure Iron + Copper + Stainless Steel
5	**Plate**	Carton Steel
6	**Piston**	POM
7	**Pilot Seat**	Engineered Plastics
8	**Valve Body**	Aluminum Alloy
9	**Spool**	Aluminum Alloy
10	**O-ring**	NBR
11	**Rear Cover**	Engineered Plastics
12	**Filter**	Synthetic Material
13	**Piston**	Engineered Plastics
14	**Manual Button**	Engineered Plastics



Dimension

Product SKU	Dimension (in)																		Weight (lb)
	A	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	W	
NORMALLY CLOSED (NC)																			
3V110-06	1/8	0.75	0.51	0.65	0.61	0.06	1.06	0.13	0.12	3.63	0.83	0.24	1.06	2.17	1.33	0.71	0.63	0.71	0.23
3V210-08	1/4	1.18	0.67	0.63	0.73	0.06	1.38	0.13	0.17	4.44	0.98	0.37	1.26	2.63	1.58	0.78	0.89	0.87	0.24
3V310-10	3/8	1.38	0.79	0.75	0.85	0.08	1.57	0.17	0.17	4.89	1.18	0.37	1.44	2.72	1.58	0.97	0.94	1.06	0.57
3V410-15	1/2	1.59	1.06	0.98	0.83	0.08	1.97	0.17	0.20	5.70	1.89	0.45	1.77	2.92	1.58	1.15	1.24	1.34	0.98

(1) Weight and dimension may vary slightly from production
(2) Dimension shown are nominal and provided for reference only
(3) Dimension tolerance: ± 5% unless otherwise specified
(4) H = Height (without DIN Connector), L = Length, W = Width

Product Ordering Code

3V **X** **X** **X** **-** **X** **-** **X** **X**

VALVE SERIES

CODE	DESCRIPTION
3V	3/2 PNEUMATIC SOLENOID VALVE

VALVE BODY ID CODE

CODE	DESCRIPTION
1	1SERIES (FOR 1/8" only)
2	2SERIES (FOR 1/4" only)
3	3SERIES (FOR 3/8" only)
4	4SERIES (FOR 1/2" only)

CONTROL TYPE

CODE	DESCRIPTION
1	SINGLE CONTROL

VALVE TYPE

CODE	DESCRIPTION
0	NORMALLY CLOSED (NC)

VALVE SIZE

CODE	DESCRIPTION	
06	1/8"	DN6
08	1/4"	DN8
10	3/8"	DN10
15	1/2"	DN15

VOLTAGE USED

CODE	DESCRIPTION
24V	24V
110V	110V

TYPE OF CURRENT

CODE	DESCRIPTION
AC	ALTERNATING CURRENT
DC	DIRECT CURRENT

EXAMPLE:
3V210-08-110VAC indicates an aluminum alloy body 3/2 Pneumatic Solenoid Valve, single control, 1/4" NPT-Female, normally closed configuration with 110V AC coil