



# Pneumatic Directional Control Valves – AVS Air Pilot Valves

NITRA™ pneumatic AVS-5 series directional control air valves are body ported 5-port (4-way) spool valves. Available port sizes are 1/8", 1/4", 3/8" or 1/2" NPT with flow coefficients (Cv) from 0.67 to 2.79. Models are available with single pilot spring return or double pilot 2-position operation. In addition, double pilot models are available with 3-position center closed operation. The AVS series can be used in individual valve applications, or multiple valves can be field assembled on AM-5 series manifolds for simplifying piping connections (AVS-52 & AVS-53 series only). AM-5 series manifolds are available in 2, 4, 6 or 8 stations.



Single Pilot Valve



Double Pilot Valve

## Features

- Body ported, 5-port (4-way) spool valves
- 1/8", 1/4", 3/8" or 1/2" NPT ports
- 2-position, single pilot normally closed, spring return; 2-position, double pilot; 3-position, double pilot center closed
- Single valve or multiple manifold mounted valve applications
- 2-year warranty



See [www.AutomationDirect.com](http://www.AutomationDirect.com) for a wide variety of fitting options



Diagram "A"



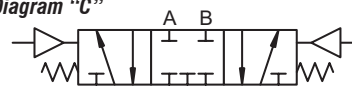
Single Pilot, Spring Return

Diagram "B"



Double Pilot, 2-Position

Diagram "C"



Double Pilot, 3-Position, Center Closed



AVS Series Air Pilot Valve Specifications									
Models	AVS-5251	AVS-526C1	AVS-5242	AVS-526C2	AVS-5343	AVS-5353	AVS-5444	AVS-5454	AVS-546C4
Price									
Weight (lbs)	0.4	0.5	0.3	0.5	0.5	0.6	1.1	1.2	1.4
Valve Type	5-port 2-position	5-port 3-position closed center	5-port 2-position	5-port 3-position closed	5-port 2-position		5-port 2-position		5-port 3-position closed center
Acting	double air pilot		single air pilot	double air pilot	single air pilot	double air pilot	single air pilot	double air pilot	
Diagram	B	C	A	C	A	B	A	B	C
Port Size	1/8" NPT		Inlet port 1/4" NPT - Exhaust 1/8" NPT		Inlet port 3/8" NPT - Exhaust 1/4" NPT		1/2" NPT		
Pilot Port Size	1/8 NPT								
Flow Cv		0.67	0.89	0.67	1.67		2.79		1.68
Fluid	Air (to be filtered by 40 µ filter element)								
Min. / Max. Pressure	20 to 115 psi (Pilot must be at least 50% of inlet pressure)								
Max Activate Rate		3 cycles/sec	5 cycles/sec	3 cycles/sec	5 cycles/sec				
Temperature	-5 to +60 °C (23 to 140 °F)								
Lubrication	Not Required								
Body	Aluminum Alloy								
Drawing Figure	2	3	1	3	4	5	7	8	9

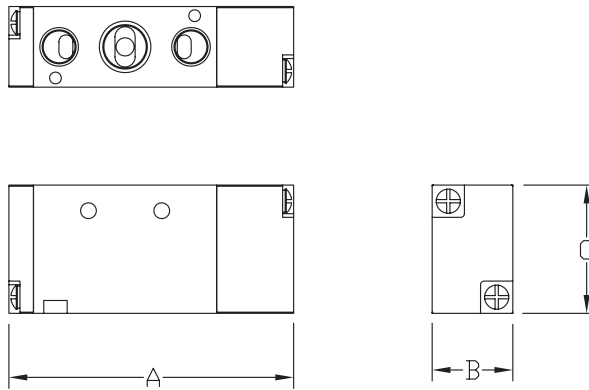


# Pneumatic Directional Control – Manual Valve Dimensions

## Dimensions

mm [inches]

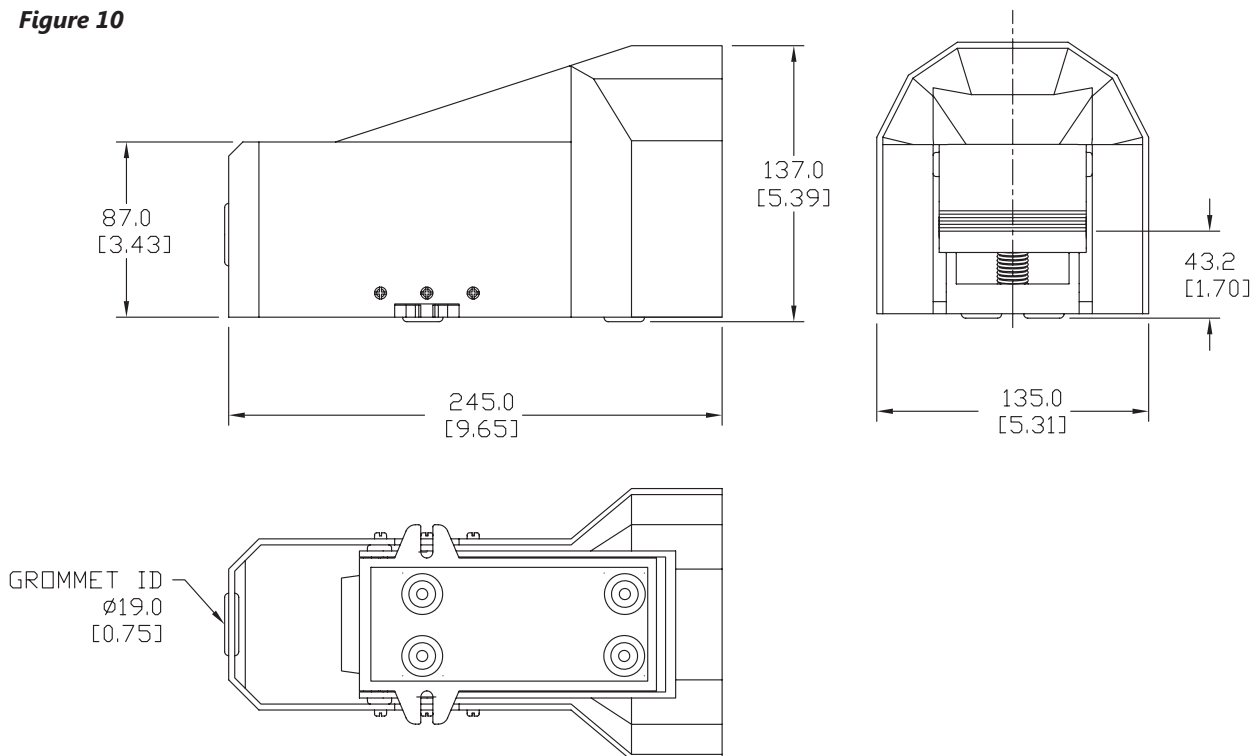
Figures 1-9



PILOT VALVE DIMENSIONS									
DWG FIGURE	1	2	3	4	5	6	7	8	9
DIM. A	77.7 [3.06]	92.0 [3.62]	111.0 [4.37]	95.5 [3.76]	111.0 [4.37]	130.0 [5.12]	128.0 [5.04]	142.0 [5.51]	163.0 [6.42]
DIM. B	22.0 [0.87]	22.0 [0.87]	22.0 [0.87]	27.0 [1.06]	27.0 [1.06]	27.0 [1.06]	34.0 [1.34]	34.0 [1.34]	34.0 [1.34]
DIM. C	35.0 [1.38]	35.0 [1.38]	35.0 [1.38]	40.0 [1.57]	40.0 [1.57]	40.0 [1.57]	50.0 [1.97]	50.0 [1.97]	50.0 [1.97]

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings

Figure 10



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