



# Pneumatic Directional Control – Manual Valves

NITRA™ pneumatic directional control manual valves are body ported spool or ball valves. Available port sizes are 1/8", 1/4" or 1/2 NPT with flow coefficients (Cv) from 0.78 to 5.29. Models are available in 2-position or 3-position detented operation styles.

## Features

- Body ported, 5-port spool or 4-port rotary valves
- 2-position or 3-position detented operation
- 2 year warranty



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



Side View

### Toggle Style Hand Lever Valve

Diagram "A"



5-Port, 2-Pos. Toggle Detented

Toggle Style Hand Lever Valve Specifications		
Model	AVS-527D1-HL	AVS-537D2-HL
Price	\$16.50	\$23.50
Weight (lbs)	0.4	0.6
Valve Type	5-port 2-position detented	
Acting	Direct Action Hand Lever	
Diagram	A	
Port Size	1/8" NPT	1/4" NPT
Flow Cv	0.78	1.39
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	0-115Psi	
Temperature	-5-60°C (23-140°F)	
Lubrication	Not Required	
Body	Aluminum Alloy	
Drawing Figure	11	



### Push-Pull Valves

Diagram "B"



5-Port, 2-Pos. Push-Pull Detented

Push-Pull Valve Specifications		
Model	AVS-527D1-PP	AVS-537D2-PP
Price	\$16.00	\$22.00
Weight (lbs)	0.3	0.6
Valve Type	5-port 2-position detented	
Acting	Direct Acting Push-Pull	
Diagram	B	
Port Size	1/8" NPT	1/4" NPT
Flow Cv	0.78	1.39
Fluid	Air (to be filtered by 40µ filter element)	
Min. / Max. Pressure	0-115Psi	
Temperature	-5-60°C (23-140°F)	
Lubrication	Not Required	
Body	Aluminum Alloy	
Drawing Figure	12	

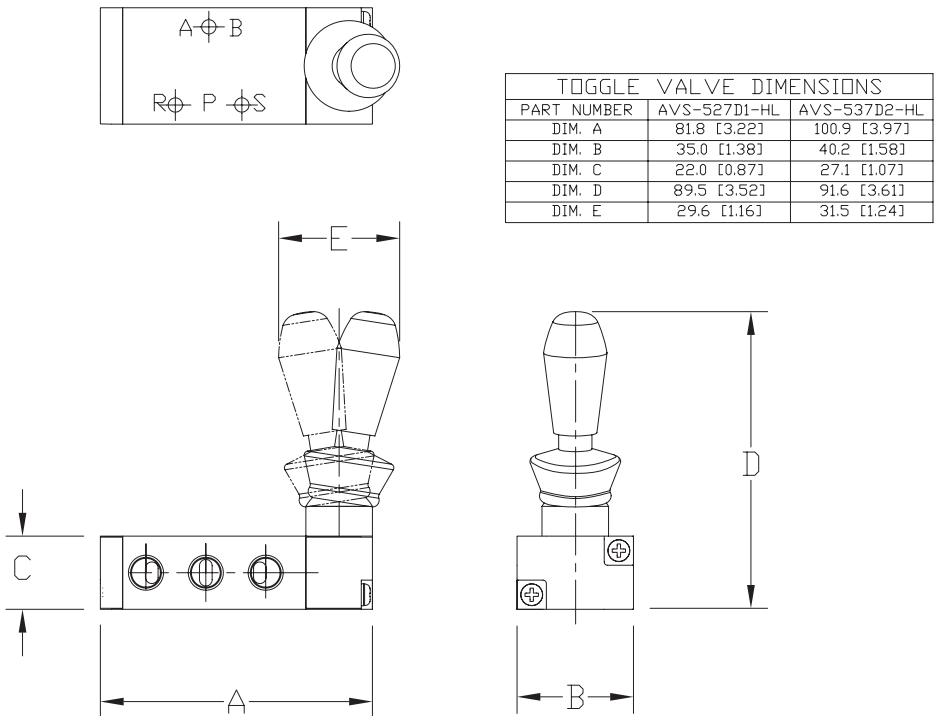


# Pneumatic Directional Control - Manual Valve Dimensions

## Dimensions

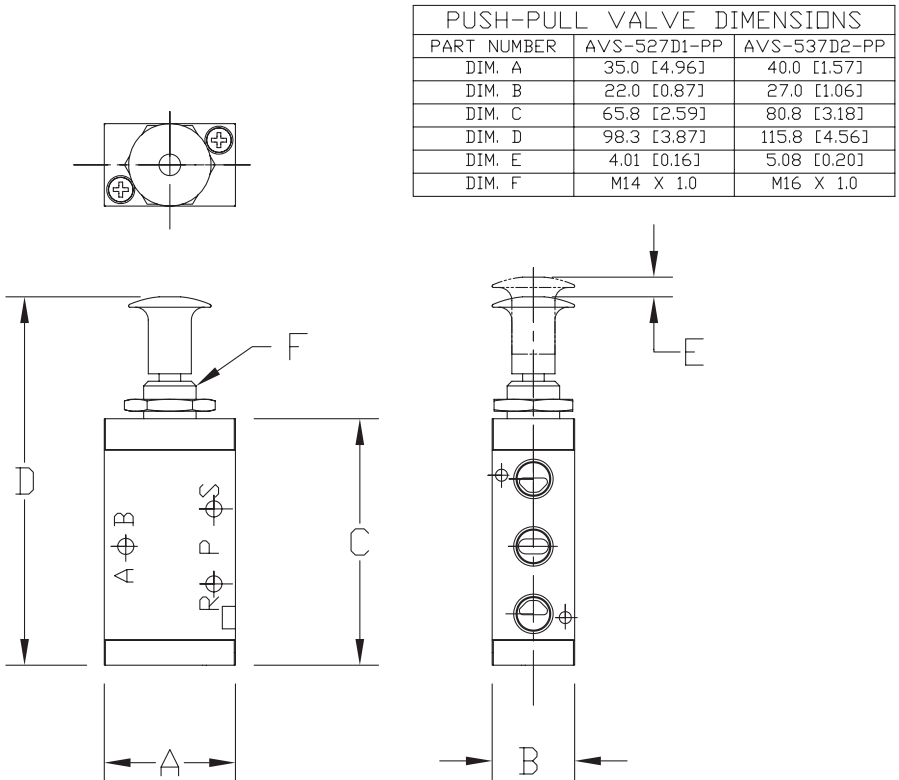
mm [inches]

Figure 11



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

Figure 12



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# Pneumatic Directional Control – Manual Valves



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## Rotary Style Hand Lever Valve

Diagram "A"

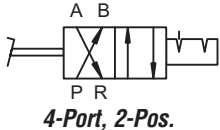
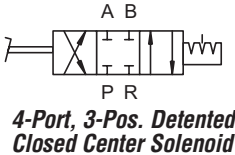


Diagram "B"



Rotary Style Hand Lever Valve Specifications				
Model	CVR-437D2-HL	CVR-438D2-HL	CVR-447D4-HL	CVR-448D4-HL
Price	\$17.00	\$17.00	\$20.50	\$20.50
Weight (lbs)	1.5	1.5	3.1	3.1
Valve Type	4-port 2-position	4-port 3-position detented closed center	4-port 2-position	4-port 3-position detented closed center
Acting	Rotary Style Hand Lever			
Diagram	A	B	A	B
Port Size	1/4" NPT	1/4" NPT	1/2" NPT	1/2" NPT
Flow Cv	0.89	0.89	5.29	5.29
Fluid	Air (to be filtered by 40µ filter element)			
Min. / Max. Pressure	0-145Psi			
Temperature	-5-63°C (23-145°F)			
Lubrication	Not Required			
Body	Aluminum Alloy			
Drawing Figure	13			

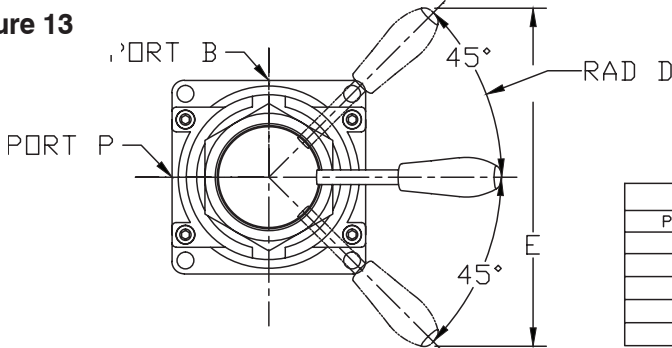


# Pneumatic Directional Control – Manual Valve Dimensions

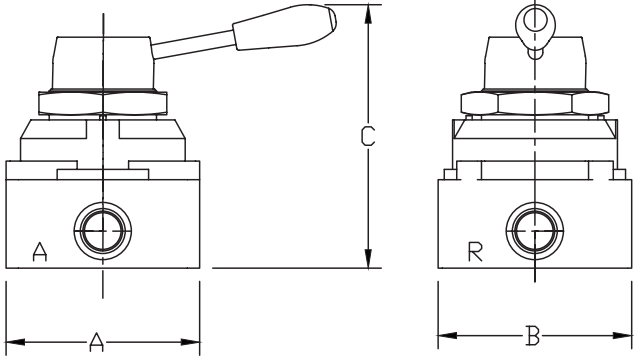
## Dimensions

mm [inches]

Figure 13



ROTARY VALVE DIMENSIONS		
PART NO	CRV-43_D2-HL	CRV-44_D4-HL
DIM. A	73.7 [2.90]	94.0 [3.70]
DIM. B	73.7 [2.90]	102.0 [4.02]
DIM. C	100.3 [3.95]	126.0 [4.96]
RAD D	101.6 [4.00]	113.0 [4.45]
DIM. E	144.8 [5.70]	160.0 [6.30]



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