NITRA PNEUMATICS

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 or spring return operation styles.

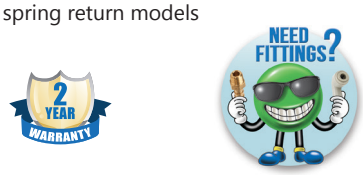
Features

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



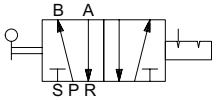
Side View

Toggle Style Hand Lever Valve



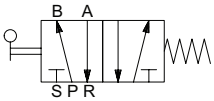
See www.AutomationDirect.com for a wide variety of fitting options

Diagram "A"



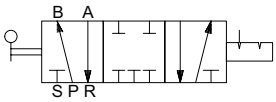
5-Port, 2-Pos. Toggle Detented

Diagram "B"



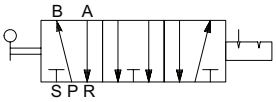
5-Port, 2-Pos. Spring Return

Diagram "C"



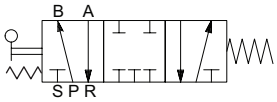
5-Port, 3-Pos. Center Closed Detented

Diagram "D"



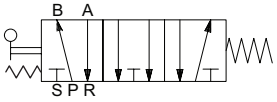
5-Port, 3-Pos. Center Exhaust Detented

Diagram "E"



5-Port, 3-Pos. Center Closed Spring Return

Diagram "F"



5-Port, 3-Pos. Center Exhaust Spring Return

Toggle Style Hand Lever Valve Specifications

Models	*AVS-527D1-HL*	*AVS-5271-HL*	*AVS-528DC1-HL*	*AVS-528DE1-HL*	*AVS-538DE1-HL*	*AVS-528C1-HL*	*AVS-528E1-HL*
Price							
Weight (lbs)	0.40	0.40	0.60	0.40	0.60	0.60	0.40
Valve Type	5-port 2-position detented	5-port 2-position spring return	5-port 3-position center closed detented	5-port 3-position center exhaust detented	5-port 3-position center exhaust detented	5-port 3-position center closed spring return	5-port 3-position center exhaust spring return
Acting	Direct Action Hand Lever						
Diagram	A	B	C	D	D	E	F
Port Size	1/8" NPT	1/8" NPT	1/8" NPT	1/8" NPT	1/4" NPT	1/8" NPT	1/8" NPT
Flow Cv	0.78	0.78	0.67	0.67	1.00	0.67	0.67
Fluid	Air (to be filtered by 40 µ filter element)						
Min. / Max. Pressure	0-115 psi						
Temperature	-5 to +60 °C (23 to 140 °F)						
Lubrication	Not Required						
Body	Aluminum Alloy						
Drawing Figure	11						

NITRA PNEUMATICS

Pneumatic Directional Control – Manual Valves



Push-Pull Valves





See www.AutomationDirect.com for a wide variety of fitting options



Diagram "A"



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

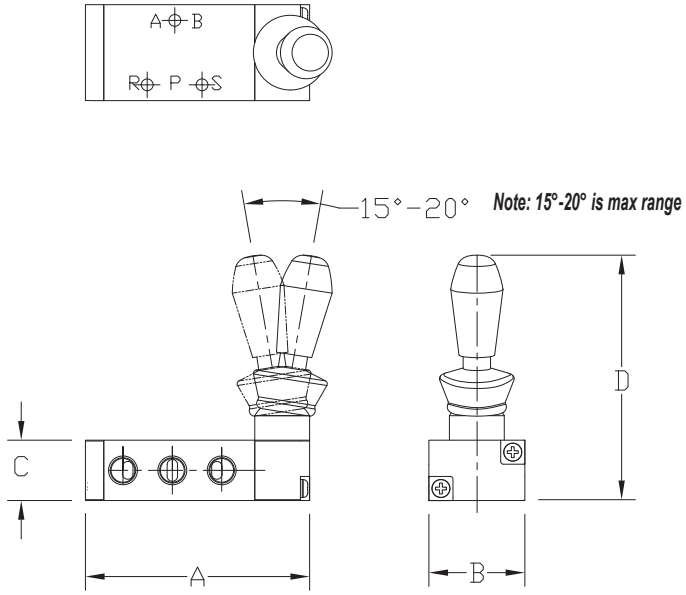
Push-Pull Valve Specifications	
Models	***AVS-527D1-PP***
Price	
Weight (lbs)	0.3
Valve Type	5-port 2-position detented
Acting	Direct Acting Push-Pull
Diagram	A
Port Size	1/8" NPT
Flow Cv	0.78
Fluid	Air (to be filtered by 40 µ filter element)
Min. / Max. Pressure	0-115 psi
Temperature	-5 to +60 °C (23 to 140 °F)
Lubrication	Not Required
Body	Aluminum Alloy
Drawing Figure	12

Pneumatic Directional Control - Manual Valve Dimensions

Dimensions

mm [inches]

Figure 11



Push-Pull Valve Specifications				
Model	***A mm [inches]***	***B mm [inches]***	***C mm [inches]***	***D mm [inches]***
AVS-527D1-HL	81.8 [3.22]	35.0 [1.38]	22.0 [0.87]	89.5 [3.52]
AVS-5271-HL	81.5 [3.21]	35.0 [1.38]	22.0 [0.87]	89.9 [3.54]
AVS-528DC1-HL	81.5 [3.21]	35.0 [1.38]	22.0 [0.87]	89.9 [3.54]
AVS-528DE1-HL	81.5 [3.21]	35.0 [1.38]	22.0 [0.87]	89.9 [3.54]
AVS-538DE1-HL	101.0 [3.98]	40.0 [1.57]	27.0 [1.06]	94.0 [3.70]
AVS-528C1-HL	100.5 [3.96]	35.0 [1.38]	22.0 [0.87]	90.4 [3.56]
AVS-528E1-HL	100.5 [3.96]	35.0 [1.38]	22.0 [0.87]	90.4 [3.56]

See our website www.AutomationDirect.com for complete Engineering drawings

Pneumatic Directional Control – Manual Valve Dimensions

Dimensions

mm [inches]

Figure 12

PUSH-PULL VALVE DIMENSIONS		
PART NUMBER	AVS-527D1-PP	AVS-537D2-PP
DIM. A	35.0 [4.96]	40.0 [1.57]
DIM. B	22.0 [0.87]	27.0 [1.06]
DIM. C	65.8 [2.59]	80.8 [3.18]
DIM. D	98.3 [3.87]	115.8 [4.56]
DIM. E	4.01 [0.16]	5.08 [0.20]
DIM. F	M14 X 1.0	M16 X 1.0

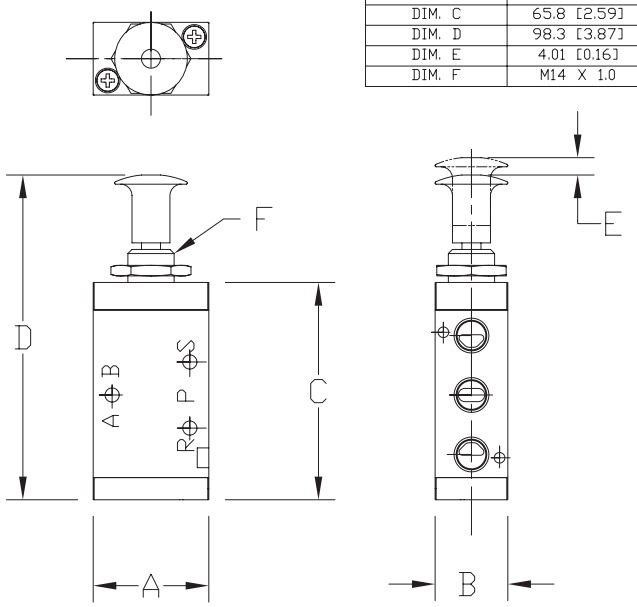
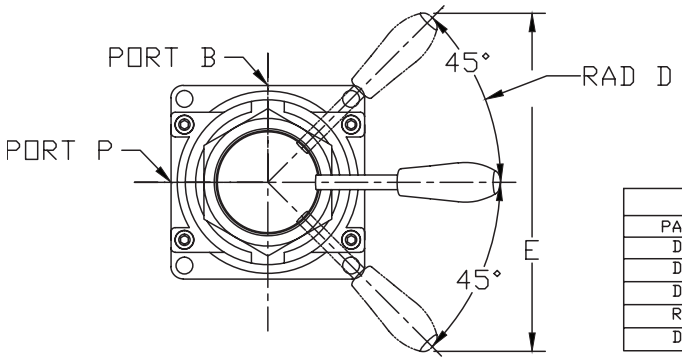
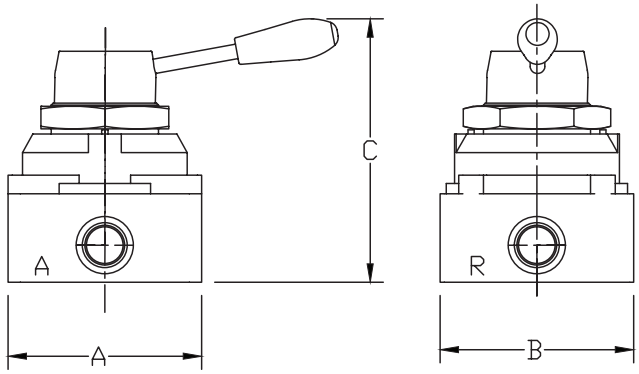


Figure 13



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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