

1-800-GRAINGER (472-4643)



Pilot-Operated Air Valves

■ Temp. range: 0° to 200°F (N Series); 5° to 120°F (B Series)
Feature external pilot, wide range of flow, and low-friction breakaway.
Can be run unlubricated.

Port Size (in.)	Cv	Max. Operating (psi)	Pilot Port Size NPT (in.)	Mfr. Model	Item No.
2-Way, Normally Closed, Single Air Pilot					
3/8 Inlet, 1/2 Exhaust	3.6	140 psi	1/4	N31431091	3FEM8
1/2 Inlet, 1/2 Exhaust	3.8	140 psi	1/4	N31441091	3FEM9
3/4 Inlet, 1 Exhaust	9.3	140 psi	1/4	N31461091	3FEN1
1 Inlet, 1 Exhaust	9.3	140 psi	1/4	N31471091	3FEN2
1 1/2 Inlet, 1 1/2 Exhaust	23.3	140 psi	1/4	N32491091	3FEN4
3-Way, 2-Position, Normally Open, Single Air Pilot					
3/8 Inlet, 1/2 Exhaust	3.6	140 psi	1/4	N37431091	3FEP4
1/2 Inlet, 1/2 Exhaust	3.8	140 psi	1/4	N37441091	3FEP5
3/4 Inlet, 1 Exhaust	9.3	140 psi	1/4	N37461091	3FEP6
1 Inlet, 1 1/4 Exhaust	9.3	140 psi	1/4	N37471091	3FEP7
1 1/4 Inlet, 1 1/2 Exhaust	23.3	140 psi	1/4	N38481091	3FEP8
1 1/2 Inlet, 1 1/2 Exhaust	23.3	140 psi	1/4	N38491091	3FEP9
3-Way, 2-Position, Normally Closed, Single Air Pilot					
1/8 Inlet, 1/8 Exhaust	0.75	145 psi	10-32 UNF	B3K0000XXC	3FDT5
1/4 Inlet, 1/4 Exhaust	1.4	145 psi	1/8	B5K1000XXC	3FDT7
3/8 Inlet, 3/8 Exhaust	2.7	145 psi	1/8	B6X2000XXA	3FDT8
3/8 Inlet, 1/2 Exhaust	3.6	140 psi	1/4	N35431091	3FEN6
1/2 Inlet, 1/2 Exhaust	3.8	140 psi	1/4	N35441091	3FEN7
1/2 Inlet, 1/2 Exhaust	5.9	145 psi	1/8	B7X3000XXA	3FDT9
3/4 Inlet, 3/4 Exhaust	7.0	145 psi	1/8	B8X4000XXA	3FDU1
3/4 Inlet, 1 Exhaust	9.3	140 psi	1/4	N35461091	3FEN8
1 Inlet, 1 1/4 Exhaust	9.3	140 psi	1/4	N35471091	3FEN9
1 1/4 Inlet, 1 1/2 Exhaust	23.3	140 psi	1/4	N36481091	3FEP1
1 1/2 Inlet, 1 1/2 Exhaust	23.3	140 psi	1/4	N36491091	3FEP2

3FEM9



3FDU9



Port Size (in.)	Cv	Max. Operating (psi)	Pilot Port Size NPT (in.)	Mfr. Model	Item No.
4-Way, 2-Position, Single Air Pilot					
1/8 Inlet, 1/8 Exhaust	0.75	145 psi	10-32 UNF	B330000XXC	3FDR9
1/4 Inlet, 1/4 Exhaust	1.4	145 psi	10-32 UNF	B531000XXC	3FDT1
3/8 Inlet, 3/8 Exhaust	2.7	145 psi	1/8	B632000XXA	3FDT2
1/2 Inlet, 1/2 Exhaust	5.9	145 psi	1/8	B733000XXA	3FDT3
3/4 Inlet, 3/4 Exhaust	7.0	145 psi	1/8	B834000XXA	3FDT4
4-Way, 2-Position, Double Air Pilot					
1/8 Inlet, 1/8 Exhaust	0.75	145 psi	10-32 UNF	B340000XXC	3FDU2
1/4 Inlet, 1/4 Exhaust	1.4	145 psi	1/8	B541000XXC	3FDU3
3/8 Inlet, 3/8 Exhaust	2.7	145 psi	1/8	B642000XXA	3FDU4
1/2 Inlet, 1/2 Exhaust	5.9	145 psi	1/8	B743000XXA	3FDU5
3/4 Inlet, 3/4 Exhaust	7.0	145 psi	1/8	B844000XXA	3FDU6
4-Way, 3-Position, Double Air Pilot, All Ports Blocked					
1/8 Inlet, 1/8 Exhaust	0.6	145 psi	10-32 UNF	B380000XXC	3FDU7
1/4 Inlet, 1/4 Exhaust	1.1	145 psi	1/8	B581000XXC	3FDU9
3/8 Inlet, 3/8 Exhaust	2.1	145 psi	1/8	B682000XXA	3FDV1
1/2 Inlet, 1/2 Exhaust	5.7	145 psi	1/8	B783000XXA	3FDV2
3/4 Inlet, 3/4 Exhaust	6.6	145 psi	1/8	B884000XXA	3FDV3



4EY60



2G635



4KP81



2F907



2F895

ARO Sleeve, Shuttle, Quick Exhaust, Miniature, and Heavy-Duty Valves

■ Temp. range: 32° to 160°F

Sleeve Valves—Inline valves allow 1-handed exhausting of compressed air lines using On/Off control. When exhaust ports are closed, the air line opens to actuate the air device. Sliding the sleeve in the opposite direction opens exhaust ports and shuts off the air supply.

Shuttle Valves—Connect 2 different inputs so that only 1 output is on at a time. 10 psi min. required to effect shuttle change.

Quick Exhaust Valves—Increase cylinder speed by providing quick release of exhausting air.

Miniature Air Pilot Directional Valve—Compact mini valve can be operated remotely using an air pilot signal. Shifts back to original position when signal is removed.

Miniature Manual and Mechanical Valves, Heavy Duty Composite Limit Valves, and Actuating Arms—Valves can be plumbed as normally passing, nonpassing, or multipurpose. 3-way, 2-position.

Port Size (in.)	Actuator/Return	Max. Operating (psi)	Cv	CFM	Mfr. Model	Item No.
Sleeve Valve						
1/8 NPT	Manual	200	0.4	14.5	600-1	4EY59
1/4 NPT	Manual	200	1.0	36	600-2	4EY60
3/8 NPT	Manual	200	1.7	59	600-3	4EY61
Shuttle Valve						
1/8 NPT	—	200	0.7	—	SV10-C	2G635
1/4 NPT	—	200	0.7	—	SV20-C	2G637
Quick Exhaust						
Cyl 1/8 in, Inlet 1/8 in, Exh 1/4 in	—	125 psi	0.195	—	EV125	4KP81
Exh 3/8 in, Inlet 1/4 in, Cyl 1/4 in	—	125 psi	0.195	—	EV250	4KP82
Exh 3/8 in, Inlet 3/8 in, Cyl 3/8 in	—	125 psi	0.195	—	EV375	4KP83



4LB49



2F919

Port Size (in.)	Actuator/Return	Max. Operating (psi)	Cv	CFM	Mfr. Model	Item No.
Miniature Pilot and Mechanical Valve						
1/8	Pilot/Spring	150 psi	0.2	4	206-C	1XWU1
Miniature Manual and Mechanical Valve						
—	Roller Lever/Spring	—	0.2	—	203-C	2F895
—	Roller Lever/Spring	—	0.2	—	202-C	4LB50
—	Ball Roller/Spring	150	0.2	7.5	213-C	2F901
—	Button/Spring	150	0.2	7.5	224-C	2F907
—	Fingertip Lever/Spring	150	0.2	7.5	201-C	2F893
1/8 NPT	Pin Plunger/Spring	150	0.2	7.5	209-C	2F897
—	Roller/Spring	150	0.2	7.5	214-C	2F903
—	Roller/Spring	150	0.2	7.5	212-C	4LB52
—	Toggle/Manual	150	0.2	7.5	223-C	2F905
—	Button/Spring	150	0.1	4	224-2-C	4LB46
—	Fingertip Lever/Spring	150	0.1	4	201-2-C	4LB44
—	Long Roller Lever/Spring	150	0.1	4	203-2-C	4LB47
—	Pin Plunger/Spring	150	0.1	4	209-2-C	4LB48
3/8 Tubing	Plunger/Spring	150	0.1	4	214-2-C	4LB49
—	Retained Toggle/Manual	150	0.1	4	223-2-C	4LB45
—	Roller/Spring	150	0.1	4	212-2-C	4LB53
—	Roller Lever/Spring	150	0.1	4	202-2-C	4LB51
Heavy-Duty Composite Limit Valves						
1/8 NPT	Clockwise/Spring	150	0.2	7.5	400-A	2F919
—	Clockwise and Counterclockwise/Spring	150	0.2	7.5	402-A	2F923
—	Counterclockwise/Spring	150	0.2	7.5	401-A	2F921
—	1-Way Clockwise/Spring	150	0.1	4	400-1-A	4LB54
—	1-Way Counterclockwise/Spring	150	0.1	4	401-1-A	4LB55
3/8 Tubing	Clockwise and Counterclockwise/Spring	150	0.1	4	402-1-A	4LB56
Actuating Arms Used with Heavy-Duty Limit Valves (1 Required for Each Valve)						
—	Adjustable Roller Lever	—	—	—	450	2F929
—	Nylon Roller	—	—	—	447	2F925
—	Rod Lever	—	—	—	449	2F927