

For Compressed Air and Vacuum

The Aventics Poppet Valves are ideal for single acting cylinders, Air Bellows and vacuum material handling.

- CAD Drawings Available
- High Flow
- Rugged Design
- Low Cost
- cURus Approved Coils



How to Order

8 227 A 1 N B 1 0 A00 00

<p>Connection Type 8 = NPT G = G</p> <p>Product Series 227 = Poppet Valve</p> <p>Revision A = Initial Release</p> <p>Item Type 1 = Poppet for Compressed Air 2 = Poppet for Vacuum (requires External Pilot option 14A) 3 = Foot Pedal</p> <p>Function 4G = 2 Position, 2 Way (2/2) NC N = 2 Position, 3 Way (3/2) NC 3P = 2 Position, 3 Way (3/2) NO 4 = 2 Position, 4 Way (5/2) (Foot Pedal Version ONLY)</p> <p>Actuation A = Solenoid Pilot w/ Spring Return P = Air Pilot w/Spring Return F = Foot Pedal w/ Spring Return D = Foot Pedal w/out Spring</p>	<p>Voltage 00 = None C7 = 110-120 VAC/50-60 Hz F3 = 12 VDC F1 = 24 VDC</p> <p>Options A00 = None 11M = COVER WITH NO OVERRIDE ACCESS 14A = EXTERNAL PILOT (standard on Air Pilot only valves) 60T = WITH FIELD INSTALLABLE ELECT. CONNECTOR(S) W/O LIGHT 66W = WITH FIELD INSTALLABLE ELECT. CONNECTOR(S) W/LIGHT 68C = 11M+14A 68D = 11M+66W 68E = 14A+66W 68F = 11M+60T 68G = 14A+60T 69A = 11M+14A+66W 69B = 11M+14A+60T</p> <p>Wiring 0 = None 1 = DIN Plug</p> <p>Port Size 1 = 1/8 35 = 3/4 1/2 = 1/4 36 = 1 3 = 3/8 8 = 1-1/2 34 = 1/2</p>
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¹Foot Pedal only offered with G 1/4 ports
³/₂ NO Poppet for Compressed Air not available with port size 1/2, 3/4, or 1
¹/₂ Function not available with port size 1/8, 1/4, or 3/8

Solenoid Air Pilot Actuated Compressed Air Valves - 1/8" to 3/8"

- 2 Position, 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- Internal or External Pilot
- Solenoid pilot actuated
- Use with air or neutral gas
- AC & DC voltages available

NOTE:

3/2 valve (1/8" to 3/8") can be converted to a 2/2 valve by inserting a pipe plug into the exhaust port

NOTE:

1/8" Solenoid Air Pilot Actuated valves for Compressed Air not available as External Pilot

NOTE:

For the Normally Open (NO) version the inlet port must be connect to the exhaust port No "3"



Technical Data

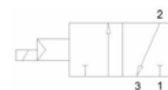
Ports (NPTF)	1/8"	1/4"	3/8"
Cv	0.84	1.56	1.8
Operating Pressure Range	43.5-145 PSIG (3-10 Bar)		36-145 PSIG (2.5-10 Bar)
Temperature Range (Ambient)	23° to +113°F ambient (-5° to +45°C ambient)		
Coil Size	22mm		
Coil Class	B		

¹ If ΔP from P1 to P2 is near 1 bar or less external pilot is required.

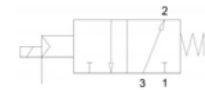
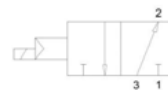
Internal Pilot

External Pilot

NC



3/8 NO



1/8-1/4 NO



Operating Data

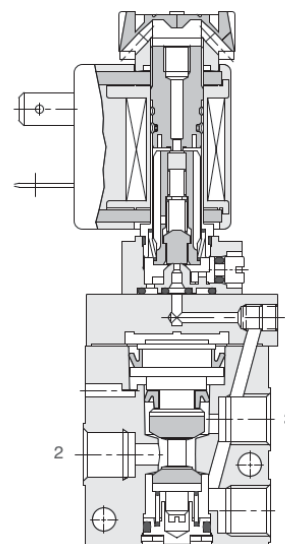
Voltage	12 VDC	24 VDC	110 VAC 50-60 Hz
Power Consumption	5W		8VA

Plug Specifications: NEMA 4, IP 65 with plug-in connector

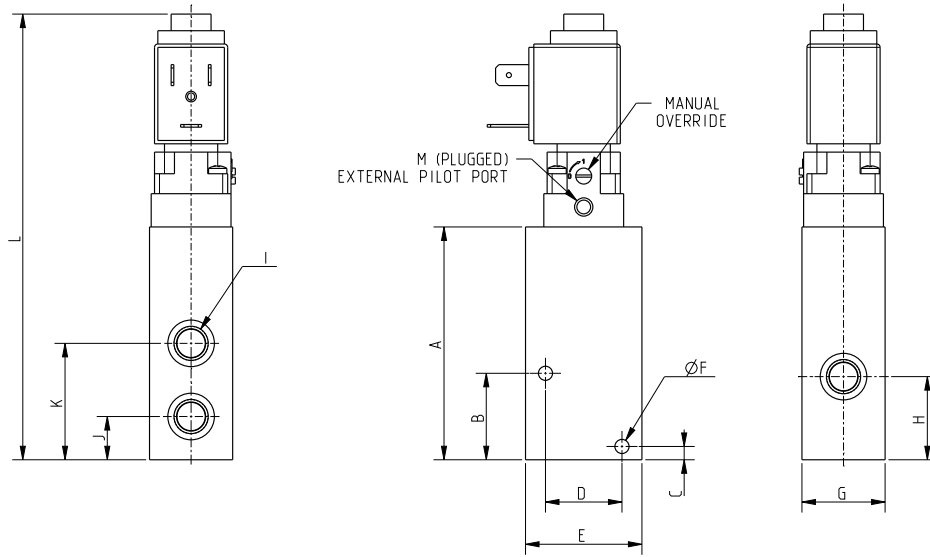
Solenoid Rating: Continuous Duty

Response Time (Seconds)	Energize	De-Energize
1/8" (NC)	0.018	0.032
1/4" (NC)	0.016	0.057
3/8" (NC)	0.014	0.034

NC: normally closed

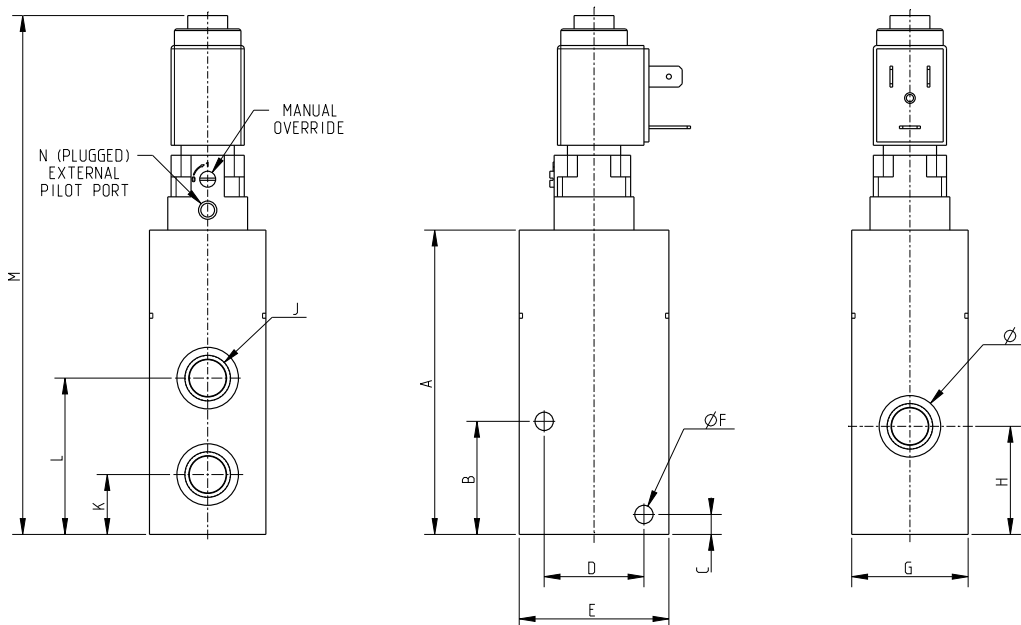


1/8" to 1/4" Dimensions for Solenoid Air Pilot Actuated



1/8" Dimensions: inches (mm)

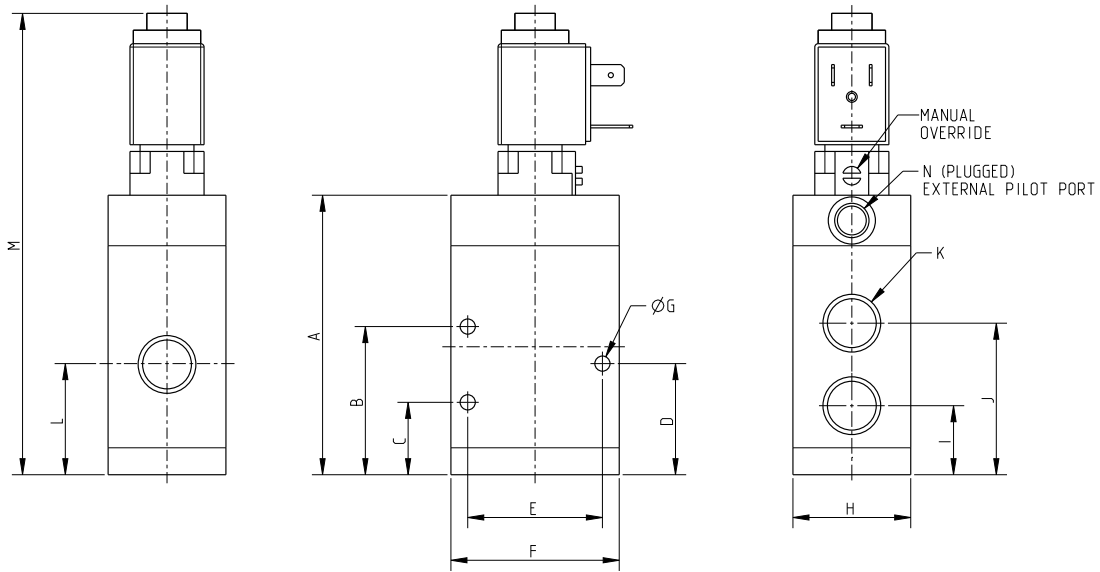
A	B	C	D	E	F	G	H	I	J	K	L	M
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8"	.512 (13.0)	1.378 (35.0)	5.276 (134.0)	M5 THREAD



1/4" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N
3.602 (91.5)	1.339 (34.0)	.236 (6.0)	1.181 (30.0)	1.772 (45.0)	.217 (5.5)	1.378 (35)	1.280 (32.5)	.728 (18.5)	1/4"	.709 (18.0)	1.850 (47.0)	6.142 (156.0)	M5 THREAD

3/8" Dimensions for Solenoid Air Pilot Actuated



3/8" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N
3.268 (83.0)	1.732 (44.0)	.846 (21.5)	1.299 (33.0)	1.575 (40.0)	1.969 (50.0)	.177 (4.5)	1.377 (35.0)	.807 (20.5)	1.772 (45.0)	3/8"	1.299 (33.0)	5.394 (137.0)	1/8"

Solenoid Air Pilot Actuated Compressed Air Valves - 1/2" to 1-1/2"

- 2 Position, 2 Way (2/2) and 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- Internal or External Pilot
- Solenoid pilot actuated
- Use with air or neutral gas
- AC & DC voltages available

NOTE:

1/2" to 1-1/2" valves cannot be converted to a 2/2 valve. If a 2/2 valve is required, it must be ordered as such.

NOTE:

Normally Open (NO) version not available in sizes 1/2, 3/4 and 1

NOTE:

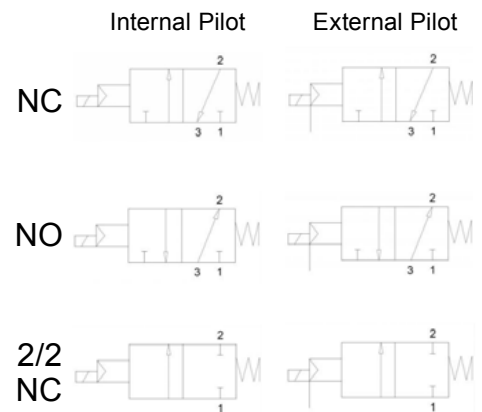
1-1/2" valve, for the Normally Open (NO) version the inlet port must be connect to the exhaust port No "3"



Technical Data

Ports (NPTF)	1/2"	3/4"	1"	1-1/2"
Cv	4.8	6.1	12.0	33.5
Operating Pressure Range	36-145 PSIG (2.5-10 Bar)			50-145 PSIG (3.5-10 Bar)
Temperature Range (Ambient)	23°F to +113°F ambient (-5°C to +45°C ambient)			
Coil Size	30mm			
Coil Class	H			

¹ If ΔP from P1 to P2 is near 1 bar or less external pilot is required.



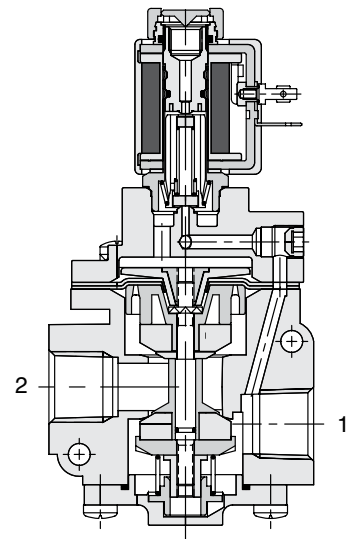
Operating Data

Voltage	12VDC	24VDC	110VAC 50-60Hz
Power Consumption	8W		11VA

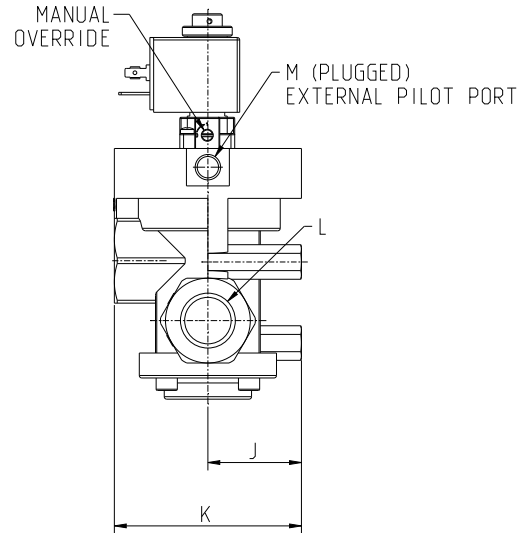
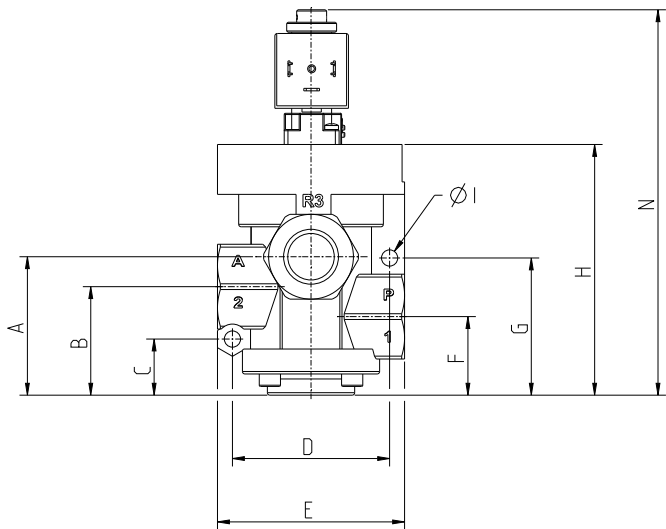
Plug Specifications: NEMA 4, IP 65 with plug-in connector
Solenoid Rating: Continuous Duty

Response Time (Seconds)	Energize	De-Energize
1/2" (NC)	0.021	0.044
3/4" (NO)	0.021	0.042
1" (NC)	0.031	0.098
1-1/2" (NC)	0.067	0.052

NC: normally closed

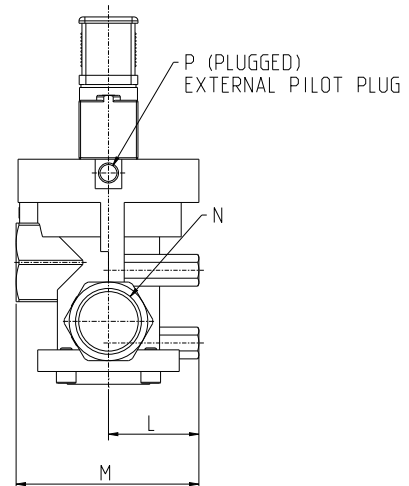
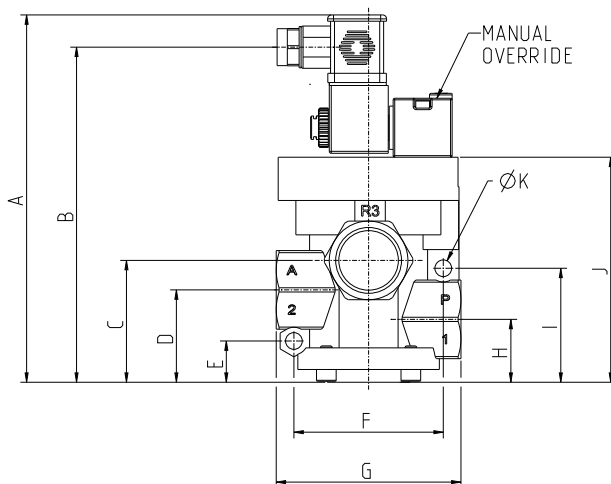


1/2" to 1" Dimensions for Solenoid Air Pilot Actuated



1/2" & 3/4" Dimensions: inches (mm)

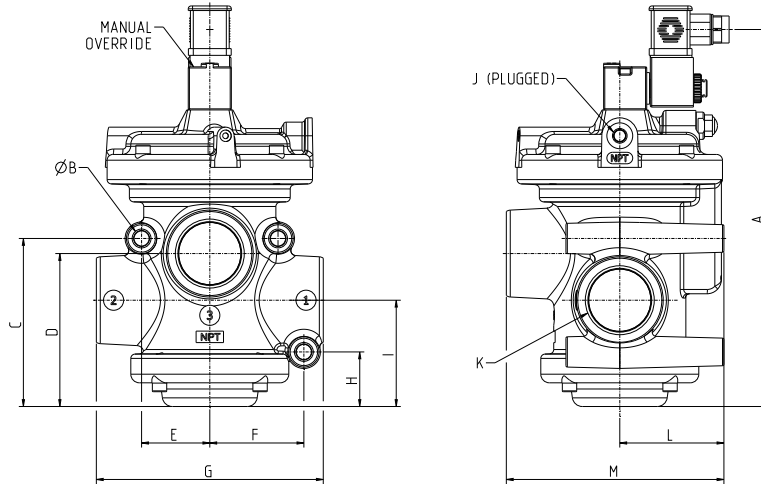
A	B	C	D	E	F	G	H	I	J	K	L	M	N
2.185 (55.5)	1.713 (43.5)	.886 (22.5)	2.480 (63.0)	2.953 (75.0)	1.240 (31.5)	2.165 (55.0)	3.957 (100.5)	.256 (6.5)	1.476 (37.5)	2.953 (75.0)	1/2" TO 3/4"	1/8"	6.083 (154.5)



1" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
7.358 (186.9)	6.713 (170.5)	2.441 (62.0)	1.850 (47.0)	.827 (21.0)	2.992 (76.0)	3.701 (94.0)	1.260 (32.0)	2.283 (58.0)	4.508 (114.5)	.335 (8.5)	1.811 (46.0)	3.661 (93.0)	1"	1/8"

1-1/2" Dimensions for Solenoid Air Pilot Actuated



1-1/2" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M
10.335 (262.5)	.394 (10.0)	4.606 (117.0)	4.193 (106.5)	1.870 (47.5)	2.579 (65.5)	6.220 (158.0)	1.496 (38.0)	2.913 (74.0)	1/8"	1-1/2"	2.854 (72.5)	5.965 (151.5)

Air Pilot Actuated Compressed Air Valves - 1/8" to 1-1/2"

- 2 Position, 2 Way (2/2) and 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- Air pilot actuated (External Pilot)
- Use with air or neutral gases
- For lubricated or non-lubricated service



NOTE:

3/2 valve (1/8" to 3/8") can be converted to a 2/2 valve by inserting a pipe plug into the exhaust port

NOTE:

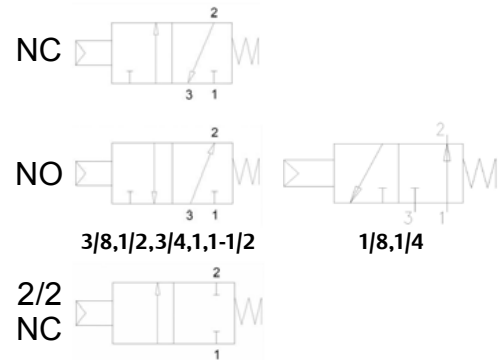
1/2" to 1-1/2" valves cannot be converted to a 2/2 valve. If a 2/2 valve is required, it must be ordered as such.

NOTE:

1/8", 1/4", 3/8" and 1-1/2" valves, for the Normally Open (NO) version the inlet port must be connect to the exhaust port No "3"

NOTE:

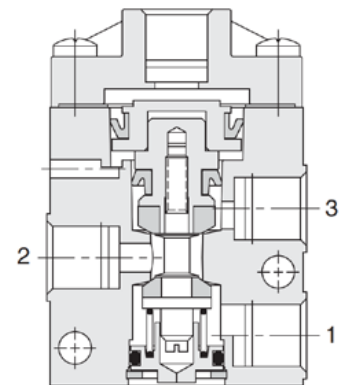
Normally Open (NO) version not available in sizes 1/2, 3/4 and 1



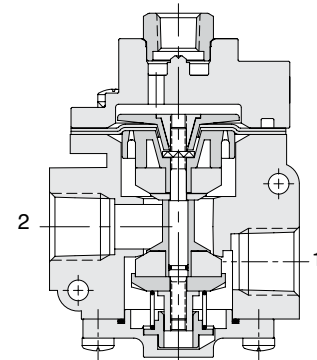
3/8, 1/2, 3/4, 1, 1-1/2

1/8, 1/4

1/8" - 3/8"



1/2" - 1-1/2"



Technical Data

Ports (NPTF)	1/8"	1/4"	3/8"
Cv	0.84	1.56	1.8
Operating Pressure Range	36-145 PSIG (2.5-10 Bar)		
Pilot Pressure	Minimum 36 PSIG (2.5)		
Temperature Range	23° to +158°F ambient (-5° to +70°C ambient)		

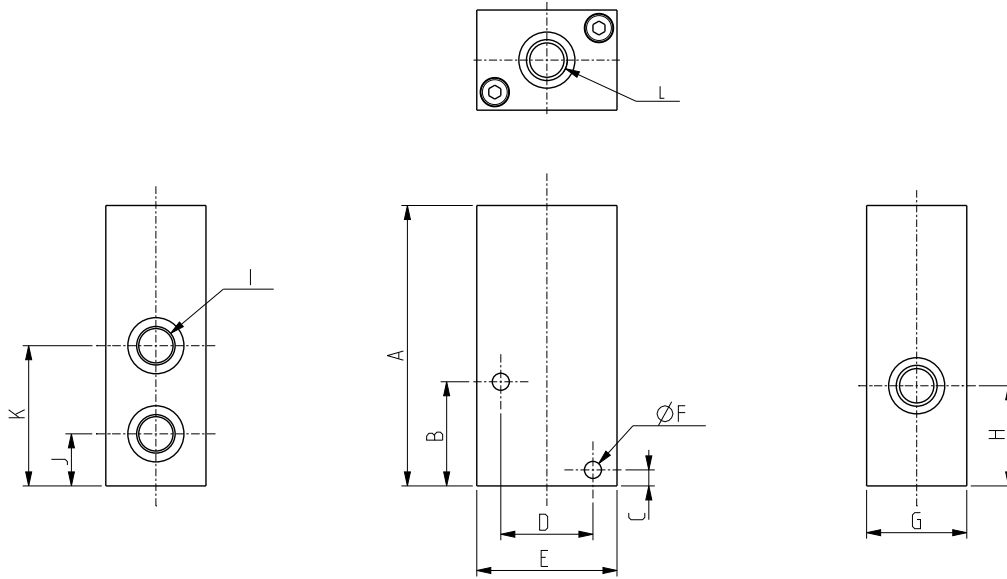
¹ If ΔP from P1 to P2 is near 1 bar or less external pilot is required.

Ports (NPTF)	1/2"	3/4"	1"	1-1/2"
Cv	4.8	6.1	12.0	33.5
Operating Pressure Range	36-145 PSIG (2.5-10 Bar)			50-145 PSIG (3.5-10 Bar)
Pilot Pressure	Minimum 36 PSIG (2.5)			50 PSIG (3.5 Bar)
Temperature Range	23° to +158°F ambient (-5° to +70°C ambient)			

Response Time (Seconds)	Energize	De-Energize
1/8" (NC, NO)	0.005	0.008
1/4" & 3/8" (NC, NO)	0.005	0.007
1/2" & 3/4" (NC)	0.007	0.010
1" (NC)	0.010	0.012
1-1/2" (NC)	0.036	0.015

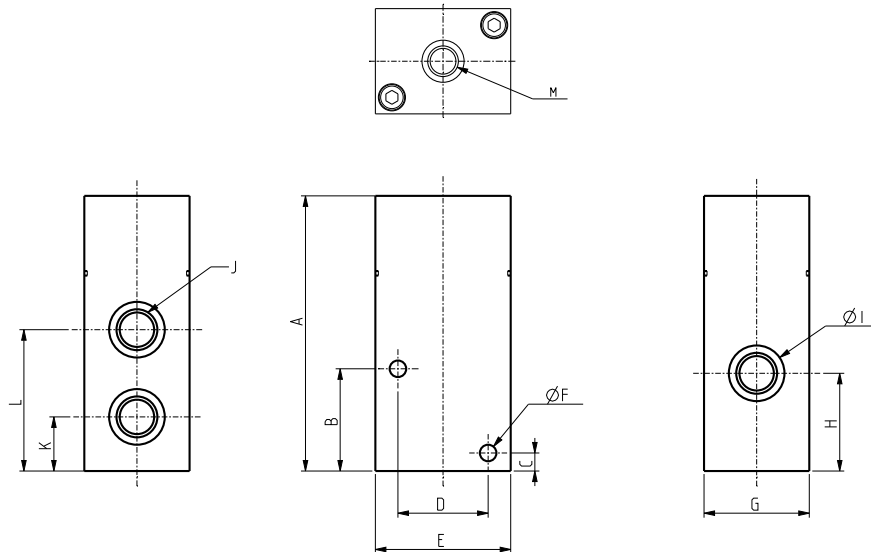
NC: normally closed NO: normally open

1/8" to 1/4" Dimensions for Air Pilot Actuated



1/8" Dimensions: inches (mm)

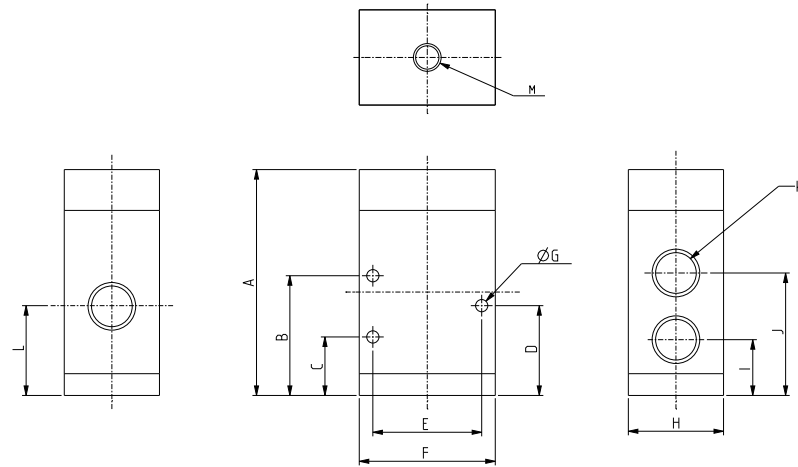
A	B	C	D	E	F	G	H	I	J	K	L
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8"	.512 (13.0)	1.378 (35.0)	1/8"



1/4" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M
3.602 (91.5)	1.339 (34.0)	.236 (6.0)	1.181 (30.0)	1.772 (45.0)	.217 (5.5)	1.378 (35)	1.280 (32.5)	.728 (18.5)	1/4"	.709 (18.0)	1.850 (47.0)	1/8"

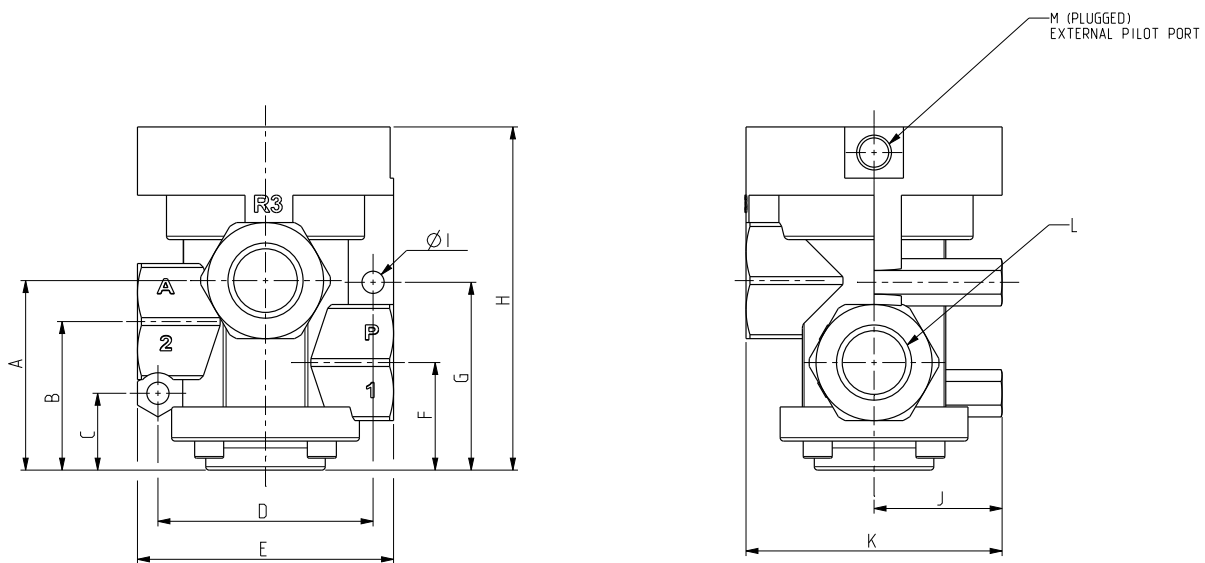
3/8" Dimensions for Air Pilot Actuated



3/8" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M
3.268 (83.0)	1.732 (44.0)	.846 (21.5)	1.299 (33.0)	1.575 (40.0)	1.969 (50.0)	.177 (4.5)	1.378 (35.0)	.807 (20.5)	1.772 (45.0)	3/8"	1.299 (33.0)	1/8"

1/2" & 3/4" Dimensions for Air Pilot Actuated

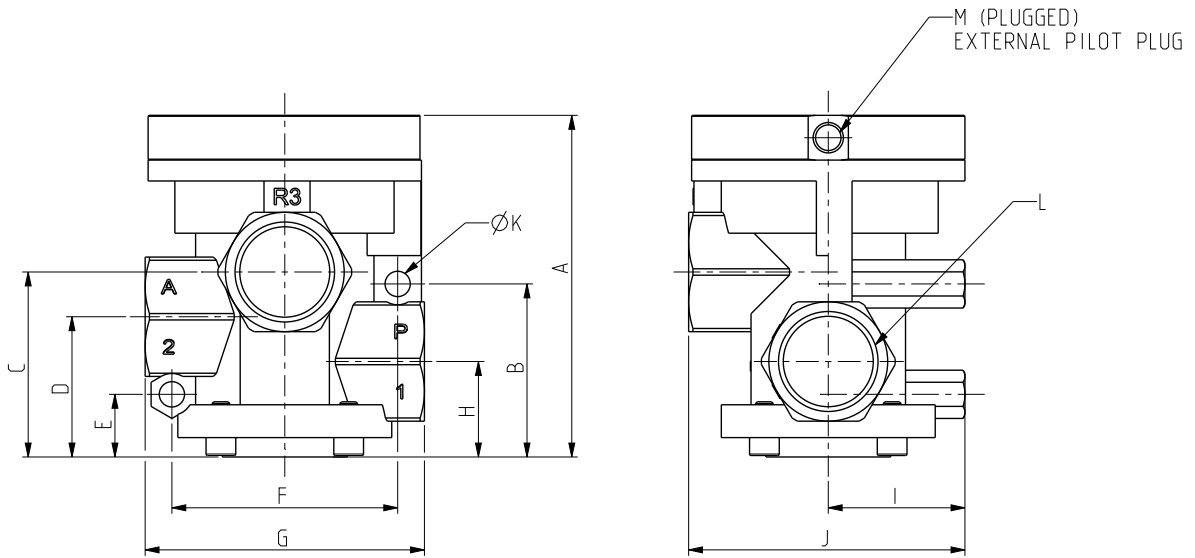


1/2" & 3/4" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M
2.185 (55.5)	1.713 (43.5)	.886 (22.5)	2.480 (63.0)	2.953 (75.0)	1.240 (31.5)	2.165 (55.0)	3.957 (100.5)	.256 (6.5)	1.476 (37.5)	2.953 (75.0)	1/2" TO 3/4"	1/8"



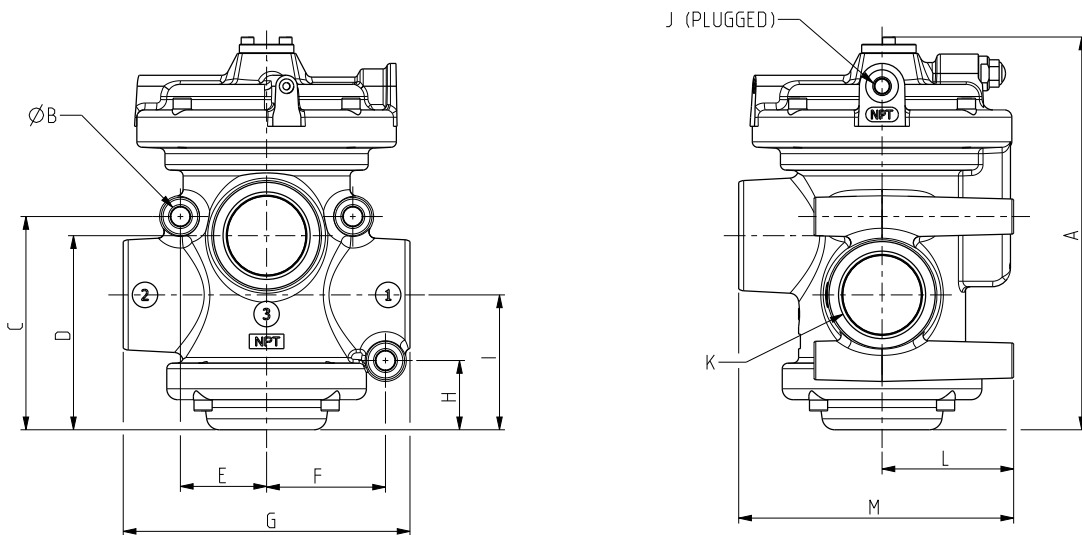
1" Dimensions for Air Pilot Actuated



1" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M
4.508 (114.5)	2.283 (58.0)	2.441 (62.0)	1.850 (47.0)	.827 (21.0)	2.992 (76.0)	3.701 (94.0)	1.260 (32.0)	1.811 (46.0)	3.661 (93.0)	.335 (8.5)	1"	1/8"

1-1/2" Dimensions for Air Pilot Actuated



1-1/2" Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M
8.484 (215.5)	.394 (10.0)	4.606 (117.0)	4.193 (106.5)	1.870 (47.5)	2.579 (65.5)	6.220 (158.0)	1.496 (38.0)	2.913 (74.0)	1/8"	1-1/2"	2.854 (72.5)	5.965 (151.5)

Repair Kits for Compressed Air

Port Size	Compressed Air Valves
1/8"	M200795A00
1/4"	M200792A00
3/8"	M200797A00
1/2"	M200788A00
3/4"	
1"	M200786A00
1-1/2"	M200794A00

Solenoid Pilot for Air

Port (NPT)	Function	Weight	
		Lbs	Kg
1/8"	NC / NO	0.53	0.24
1/4"	NC / NO	1.01	0.45
3/8"	NC / NO	0.93	0.42
1/2"	NC	2.56	1.16
3/4"	NC	2.31	1.05
1"	NC	2.47	1.12
1-1/2"	NC / NO	7.96	3.61

Air Pilot for Air

Port (NPT)	Function	Weight	
		Lbs	Kg
1/8"	NC / NO	0.37	0.17
1/4"	NC / NO	0.87	0.395
3/8"	NC / NO	0.79	0.36
1/2"	NC	2.43	1.1
3/4"	NC	2.18	0.99
1"	NC	2.34	1.06
1-1/2"	NC / NO	7.83	3.55

