



**Improve machine reliability and
reduce unplanned downtime**

AVENTICS™ Series 227 Poppet Valves

Rugged, high flow valves ideal for single-acting cylinders, air bellows, and vacuum material handling



Poppet Valves

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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

<p>Connection Type</p> <p>8 = NPT</p> <p>¹G = G</p> <p>Product Series</p> <p>227 = Poppet Valve</p> <p>Revision</p> <p>A = Initial Release</p> <p>Item Type</p> <p>³1 = Poppet for Compressed Air</p> <p>2 = Poppet for Vacuum (requires External Pilot option 14A)</p> <p>3 = Foot Pedal</p> <p>Function</p> <p>⁴G = 2 Position, 2 Way (2/2) NC</p> <p>N = 2 Position, 3 Way (3/2) NC</p> <p>³P = 2 Position, 3 Way (3/2) NO</p> <p>4 = 2 Position, 4 Way (5/2) (Foot Pedal Version ONLY)</p> <p>Actuation</p> <p>A = Solenoid Pilot w/ Spring Return</p> <p>P = Air Pilot w/Spring Return</p> <p>F = Foot Pedal w/ Spring Return</p> <p>D = Foot Pedal w/out Spring</p>	<p>8 227 A 1 N B 1 0 A00 00</p>	<p>Voltage</p> <p>00 = None</p> <p>C7 = 110-120 VAC/50-60 Hz</p> <p>²F3 = 12 VDC</p> <p>F1 = 24 VDC</p> <p>Options</p> <p>A00 = None</p> <p>11M = COVER WITH NO OVERRIDE ACCESS</p> <p>14A = EXTERNAL PILOT (standard on Air Pilot only valves)</p> <p>60T = WITH FIELD INSTALLABLE ELECT. CONNECTOR(S) W/O LIGHT</p> <p>66W = WITH FIELD INSTALLABLE ELECT. CONNECTOR(S) W/LIGHT</p> <p>68C = 11M+14A</p> <p>68D = 11M+66W</p> <p>68E = 14A+66W</p> <p>68F = 11M+60T</p> <p>68G = 14A+60T</p> <p>69A = 11M+14A+66W</p> <p>69B = 11M+14A+60T</p> <p>Wiring</p> <p>0 = None</p> <p>1 = DIN Plug</p> <p>Port Size</p> <p>⁴1 = 1/8 ^{2,3}5 = 3/4</p> <p>^{1,4}2 = 1/4 ^{2,3}6 = 1</p> <p>⁴3 = 3/8 ²8 = 1-1/2</p> <p>^{2,3}4 = 1/2</p>
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¹Foot Pedal only offered with G 1/4 ports

²12 VDC not available with port sizes 1/2 and larger

³2 NO Poppet for Compressed Air not available with port size 1/2, 3/4, or 1

⁴2/2 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"

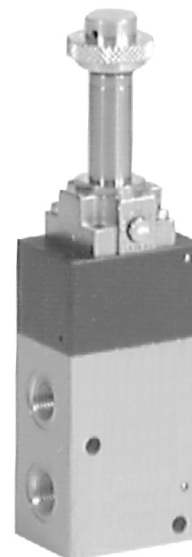
- 2 Position, 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- Internal or External Pilot
- Solenoid pilot actuated
- Use with air or neutral gas
- AC & DC voltages available

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:

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		

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

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

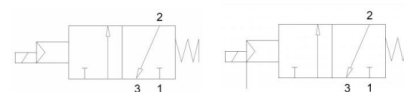
Response Time (Seconds)	Energize	De-Energize
1/8" (NC)	0.018	0.032
1/4" (NC)	0.016	0.057
3/8" (NC)	0.014	0.034

NC: normally closed

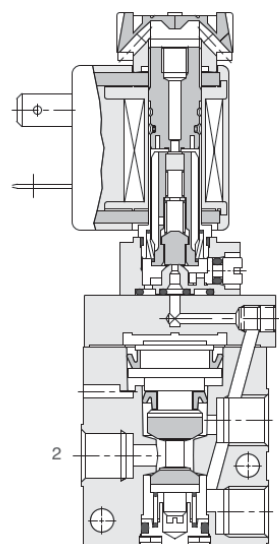
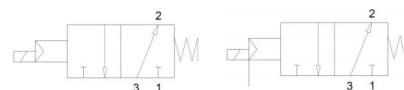
Internal Pilot

External Pilot

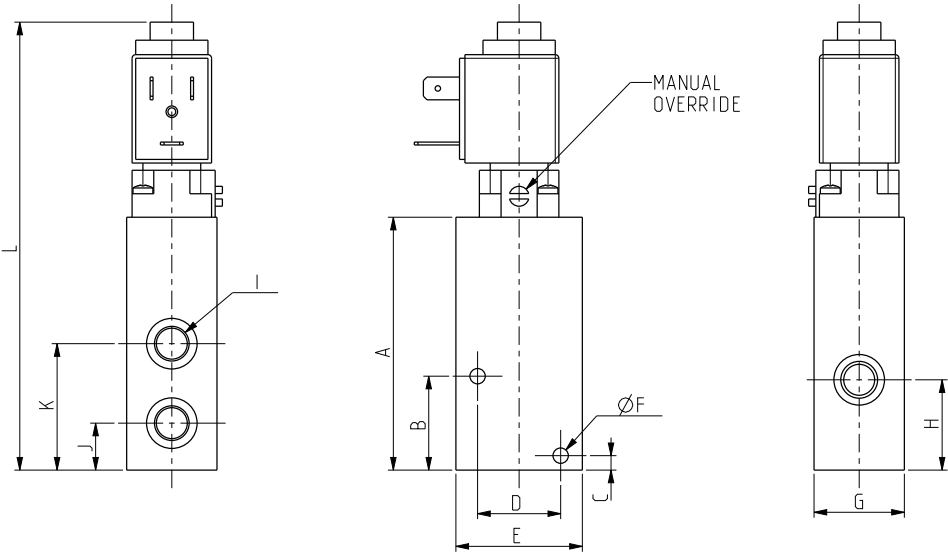
NC



NO

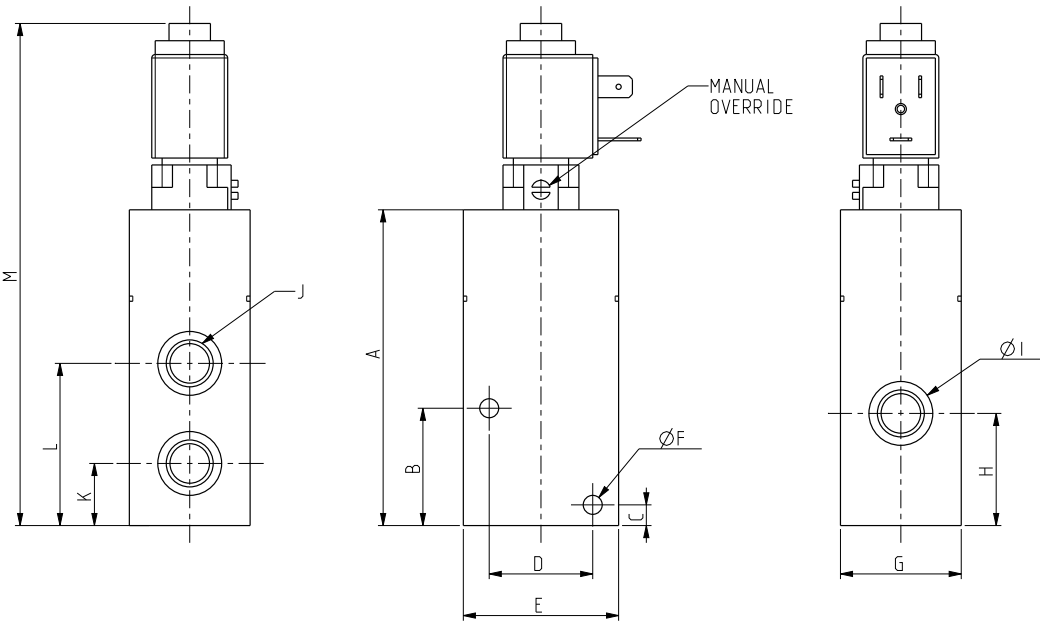


1/8" to 1/4" Dimensions for Solenoid Air Pilot Actuated



1/8" NPT Dimensions: inches (mm)

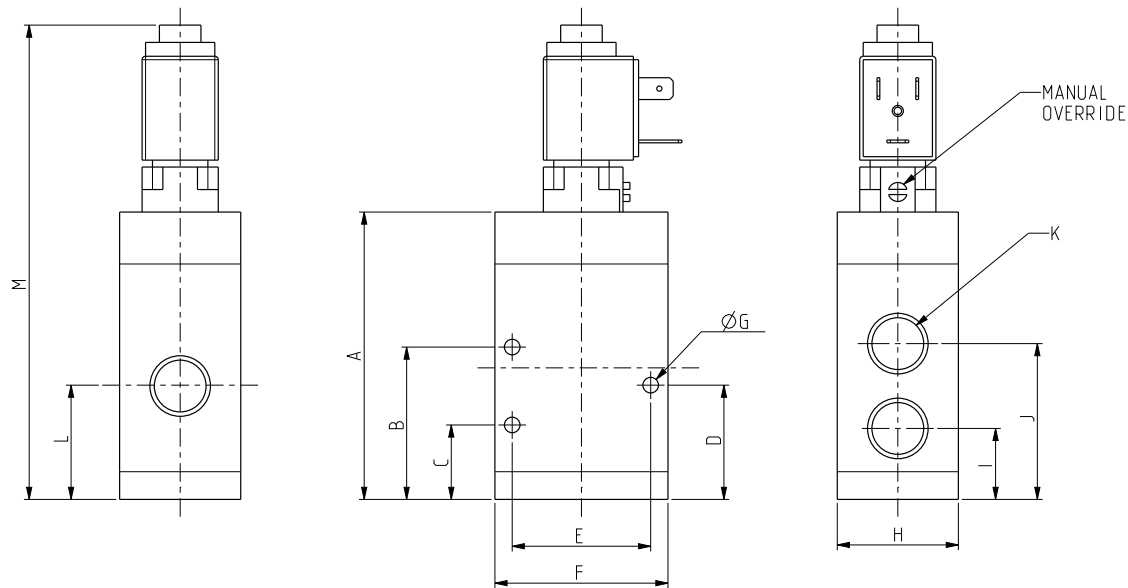
A	B	C	D	E	F	G	H	I	J	K	L
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8" NPT	.512 (13.0)	1.378 (35.0)	4.882 (124.0)



1/4" NPT 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" NPT	.709 (18.0)	1.850 (47.0)	5.728 (145.5)

3/8" Dimensions for Solenoid Air Pilot Actuated



3/8" NPT 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" NPT	1.299 (33.0)	5.394 (137.0)

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 connect to the exhaust port No "3"



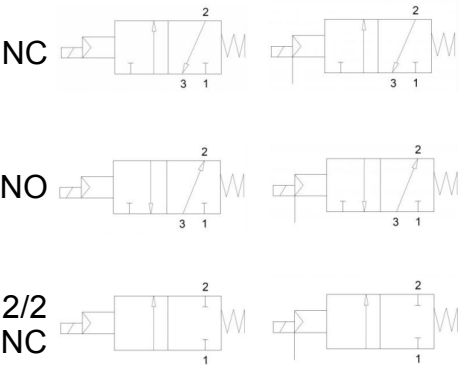
Technical Data

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)			
Temperature Range (Ambient)	23°F to +113°F ambient (-5°C to +45°C ambient)			
Coil Size	30mm			

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

Internal Pilot

External Pilot



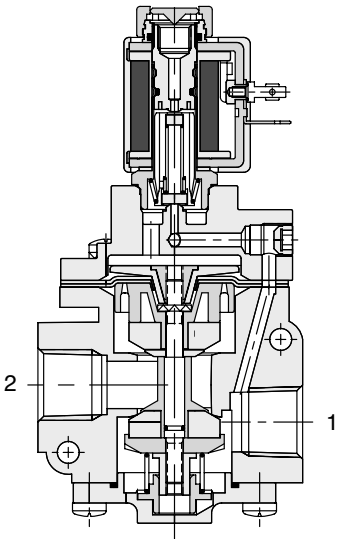
Operating Data

Ports (NPTF)	1/2" & 3/4"		1" & 1-1/2"	
Voltage	24VDC	110VAC	24VDC	115VAC 50Hz 120VAC 60Hz
Power Consumption	4W	9VA	3W	4VA

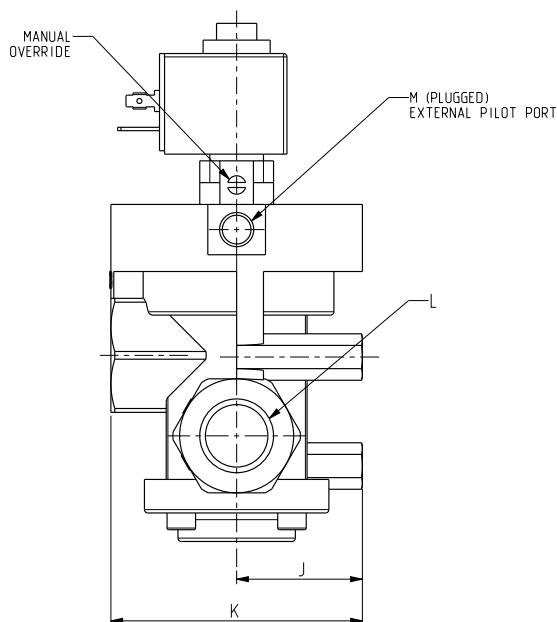
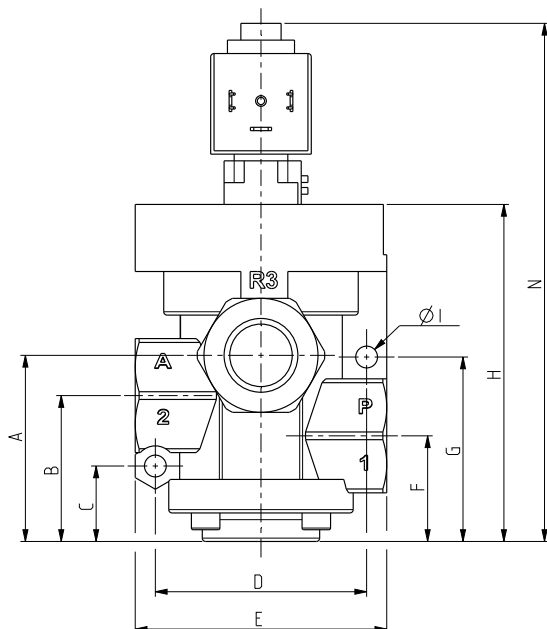
Plug Specifications: NEMA 4, IP 65 with plug-in connector
Solenoid Rating: Continuous Duty

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

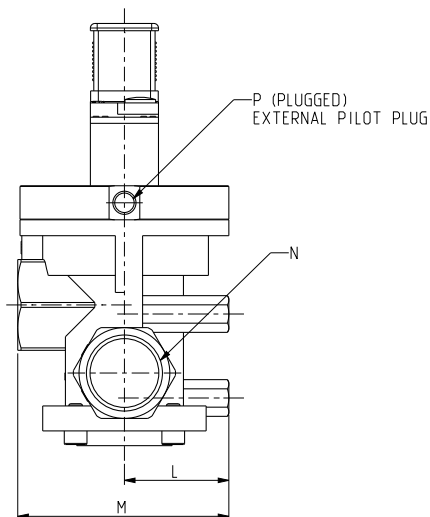
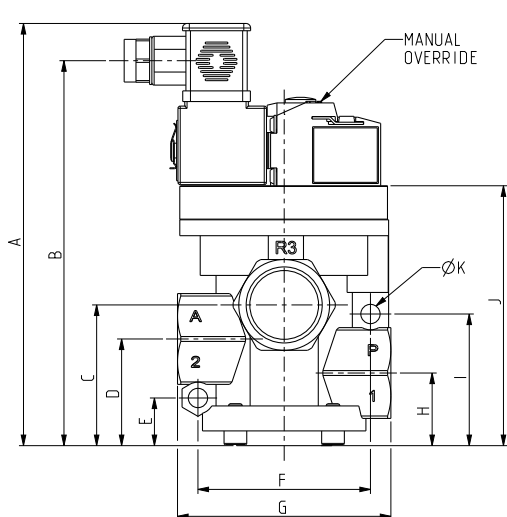


1/2" to 1" Dimensions for Solenoid Air Pilot Actuated



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

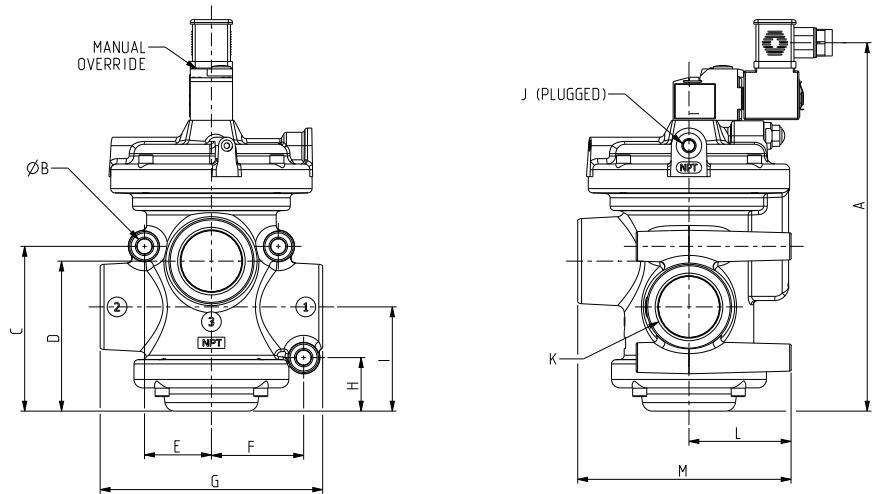
A	B	C	D	E	F	G	H	I	J	K	L	M	N
2.185 (55.5)	1.713 (43.5)	.886 (22.5)	2.480 (63.0)	2.953 (75.0)	1.240 (31.5)	2.165 (55.0)	3.957 (100.5)	.256 (6.5)	1.476 (37.5)	2.953 (75.0)	1/2" TO 3/4" NPT	1/8" GTAP	6.083 (154.5)



1" NPT Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
7.323 (186.0)	6.677 (169.6)	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" NPT	1/8" GTAP

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



1-1/2" NPT Dimensions: inches (mm)												
A	B	C	D	E	F	G	H	I	J	K	L	M
10.299 (261.6)	.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" GTAP	1-1/2" NPT	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:

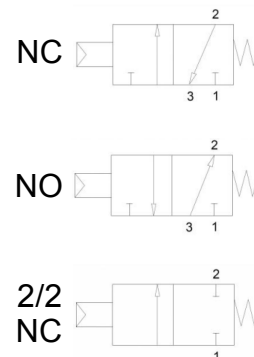
1/2" to 1-1/2" valves cannot be converted to a 2/2 valve. If a 2/2 valve is required, it must be ordered as such.

NOTE:

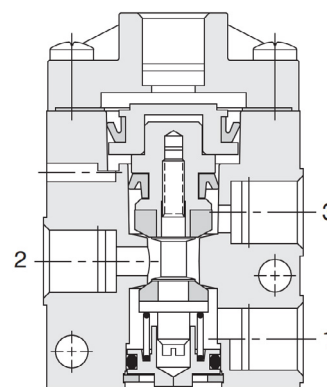
1/8", 1/4", 3/8" and 1-1/2" valves, for the Normally Open (NO) version the inlet port must be connect to the exhaust port No "3"

NOTE:

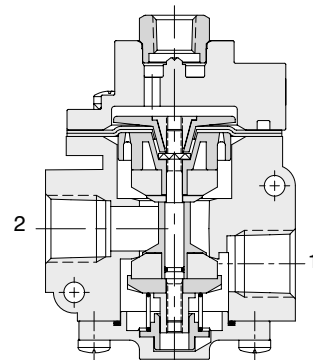
Normally Open (NO) version not available in sizes 1/2, 3/4 and 1



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.

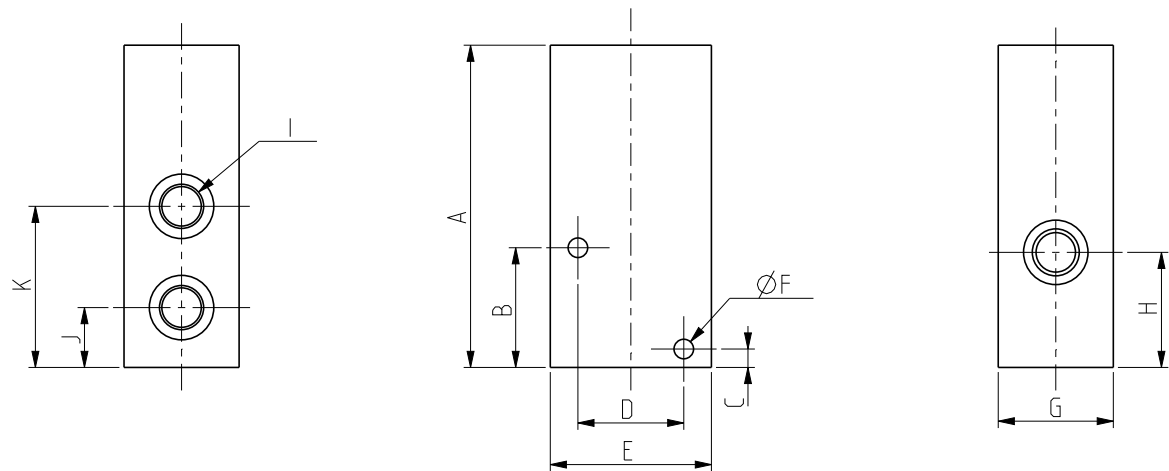
Ports (NPTF)	1/2"	3/4"	1"	1-1/2"
Cv	4.8	6.1	12.0	33.5
Operating Pressure Range	36-145 PSIG (2.5-10 Bar)			
Pilot Pressure	Minimum 36 PSIG (2.5)			
Temperature Range	23° to +158°F ambient (-5° to +70°C ambient)			

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

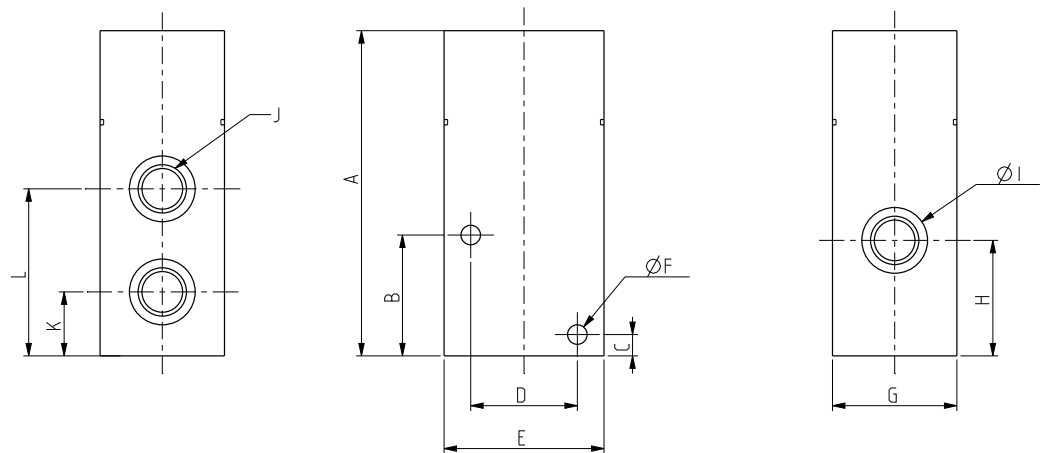


1/8" to 1/4" Dimensions for Air Pilot Actuated



1/8" NPT Dimensions: inches (mm)

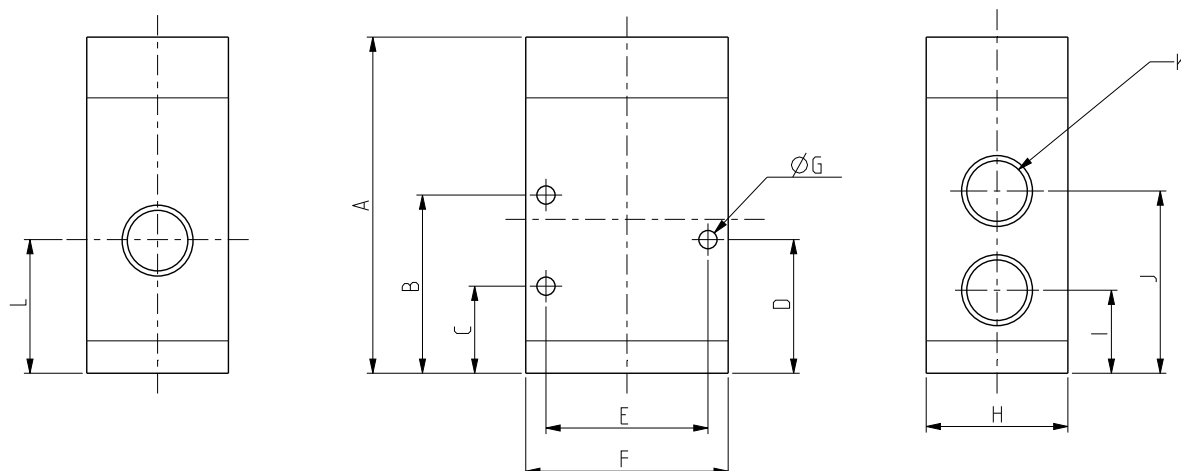
A	B	C	D	E	F	G	H	I	J	K
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8" NPT	.512 (13.0)	1.378 (35.0)



1/4" NPT Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L
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" NPT	.709 (18.0)	1.850 (47.0)

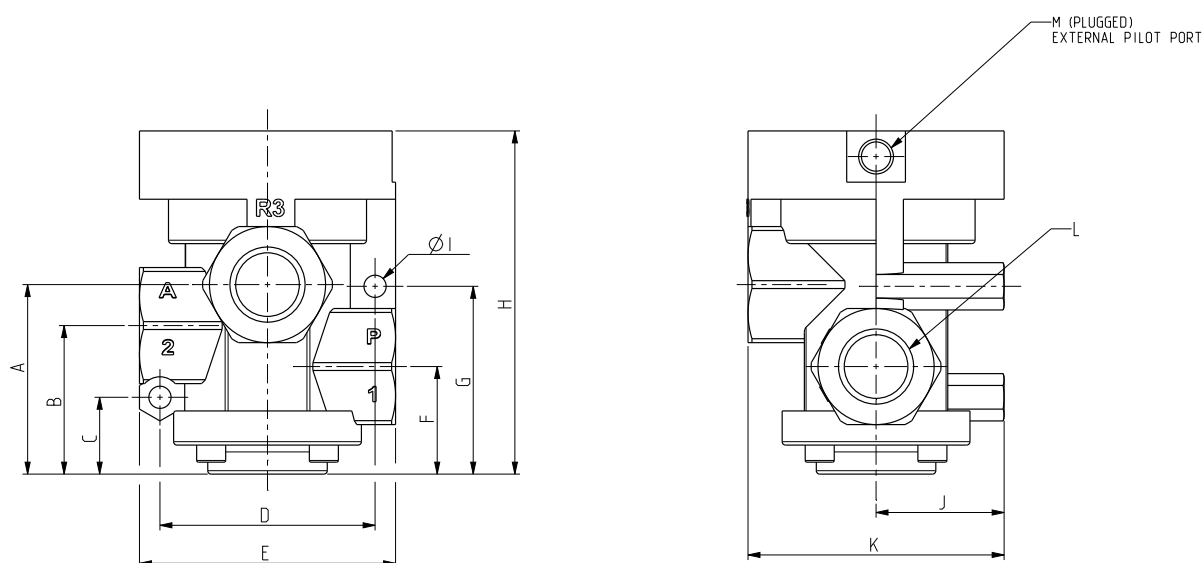
3/8" Dimensions for Air Pilot Actuated



3/8" NPT Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L
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" NPT	1.299 (33.0)

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

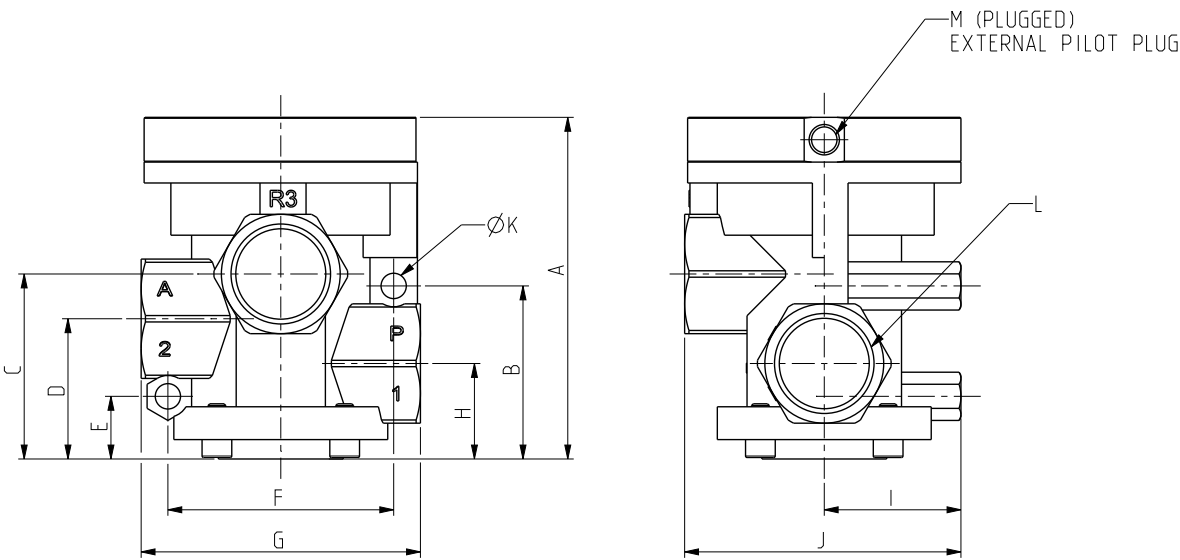


1/2" & 3/4" NPT Dimensions: inches (mm)

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" NPT	1/8" GTAP



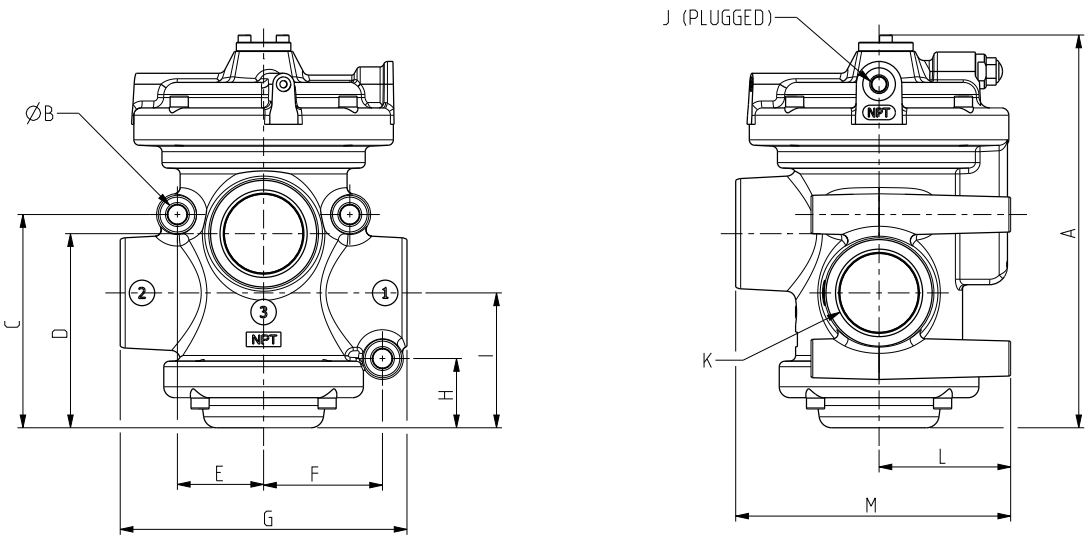
1" Dimensions for Air Pilot Actuated



1" NPT 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" NPT	1/8" GTAP

1-1/2" Dimensions for Air Pilot Actuated

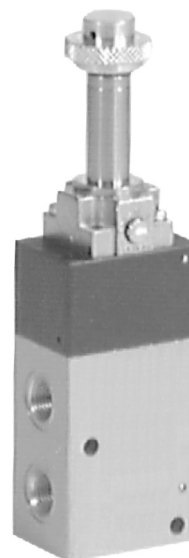


1-1/2" NPT Dimensions: inches (mm)

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" GTAP	1-1/2" NPT	2.854 (72.5)	5.965 (151.5)

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

- Solenoid External Air Pilot Actuated
- 2 Position, 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- For lubricated or non lubricated service
- Diaphragm actuated
- Polyurethane diaphragm

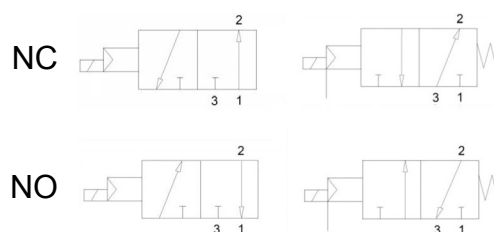


Technical Data

Ports (NPTF)	1/8"	1/4"	3/8"
Cv	0.84	1.56	1.8
Operating Vacuum Range	Minimum 9.8" of Hg (250 mm of Hg) Maximum 29.9" of Hg (759.5 mm of Hg)		
Pilot Range	43.5-145 PSIG (3-10 Bar)		30-145 PSIG (2-10 Bar)
Temperature Range	23°F to +113°F ambient (-5°C to +45°C ambient)		
Coil Size	22mm		

Internal Pilot

External Pilot



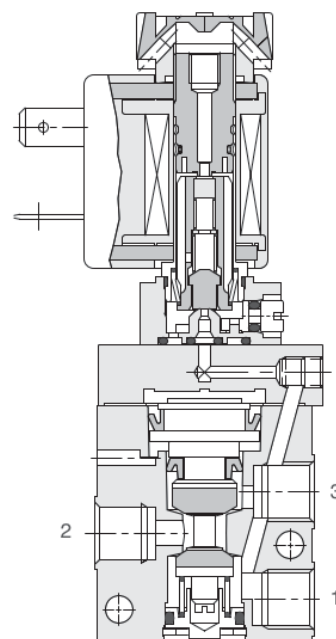
Operating Data

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

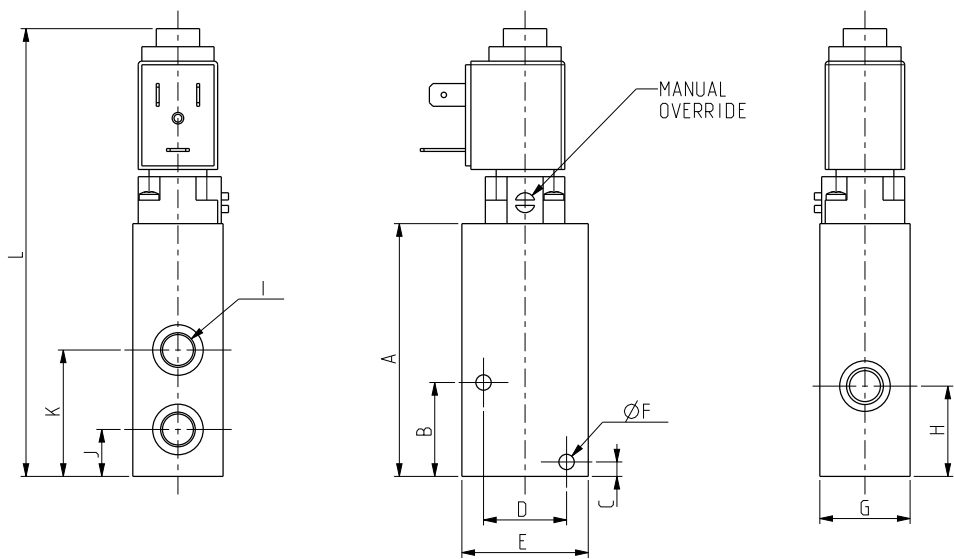
Plug Specifications: NEMA 4, IP 65 with plug-in connector
Solenoid Rating: Continuous Duty

Vacuum Valve Connections

Function	P (1)	A (2)	R (3)
Normally Closed, Internal Pilot	Exhaust	Outlet	Pump
Normally Closed, External Pilot	Pump	Outlet	Exhaust
Normally Open, Internal Pilot	Pump	Outlet	Exhaust
Normally Open, External Pilot	Exhaust	Outlet	Pump

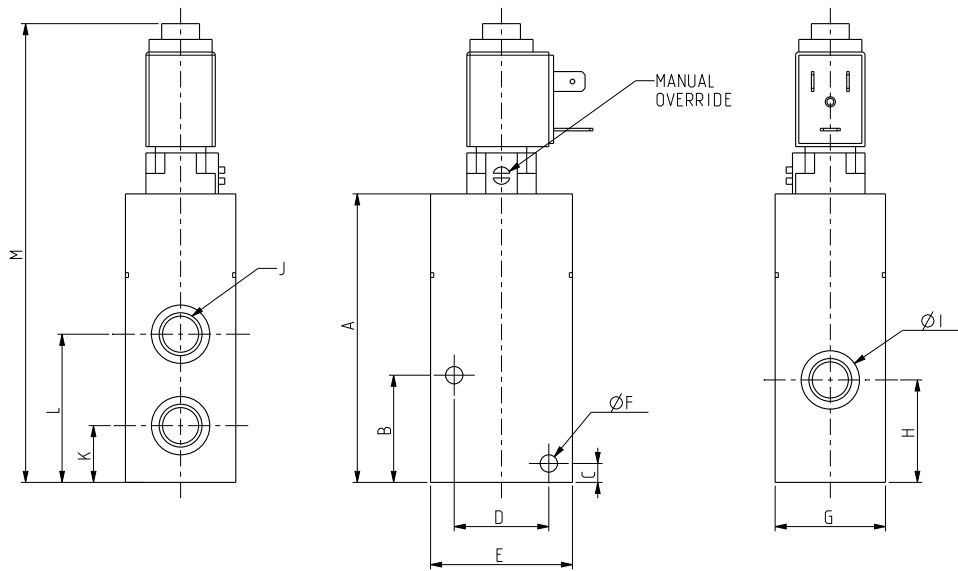


1/8" Dimensions for Solenoid Air Pilot Actuated Vacuum Valves



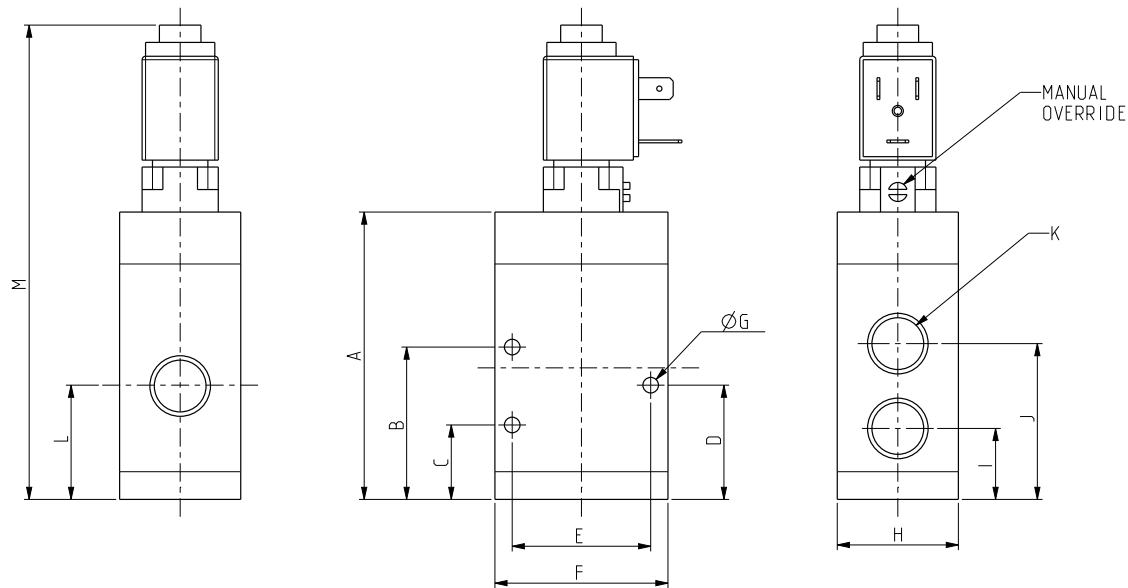
1/8" NPT Dimensions: inches (mm)											
A	B	C	D	E	F	G	H	I	J	K	L
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8" NPT	.512 (13.0)	1.378 (35.0)	4.882 (124.0)

1/4" Dimensions for Solenoid Air Pilot Actuated Vacuum Valves



1/4" NPT 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" NPT	.709 (18.0)	1.850 (47.0)	5.728 (145.5)

3/8" Dimensions for Solenoid Air Pilot Actuated Vacuum Valves



3/8" NPT 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" NPT	1.299 (33.0)	5.394 (137.0)



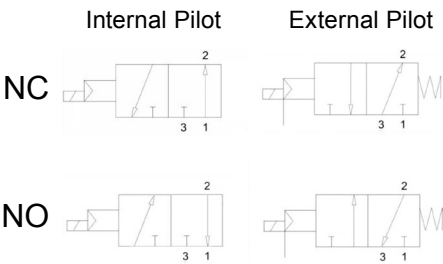
Solenoid Air Pilot Actuated Vacuum Valves - 1/2" to 1-1/2"

- Solenoid External Air Pilot Actuated
- 2 Position, 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- For lubricated or non lubricated service
- Diaphragm actuated
- Polyurethane diaphragm



Technical Data

Ports (NPTF)	1/2"	3/4"	1"	1-1/2"
Cv	4.8	6.1	12.0	33.5
Operating Vacuum Range	Minimum 9.8" of Hg (250 mm of Hg) Maximum 29.9" of Hg (759.5 mm of Hg)			
Pilot Pressure	30-145 PSIG (2-10 Bar)			
Temperature Range	23°F to +113°F ambient (-5°C to +45°C ambient)			
Coil Size	30mm			



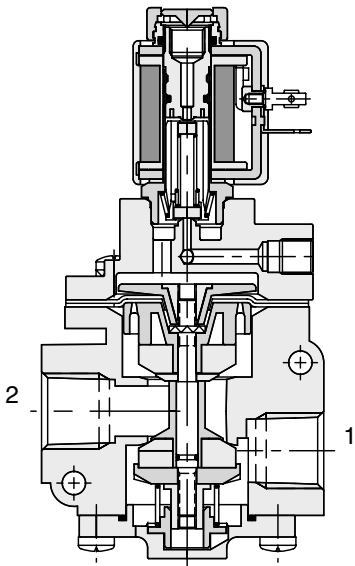
Operating Data

Ports (NPTF)	1/2" & 3/4"		1" & 1-1/2"	
Voltage	24VDC	110VAC	24VDC	115VAC 50Hz 120VAC 60Hz
Power Consumption	4W	9VA	3W	4VA

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

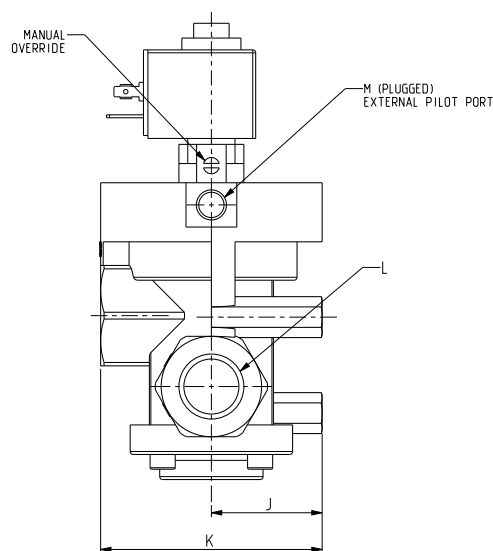
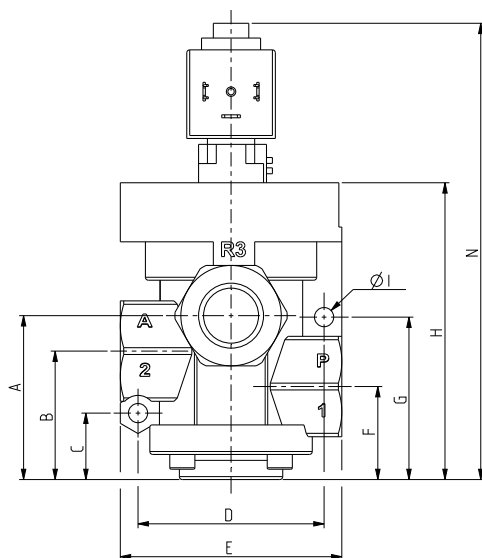
Vacuum Valve Connections

Function	P (1)	A (2)	R (3)
Normally Closed, Internal Pilot	Exhaust	Outlet	Pump
Normally Closed, External Pilot	Pump	Outlet	Exhaust
Normally Open, Internal Pilot	Pump	Outlet	Exhaust
Normally Open, External Pilot	Exhaust	Outlet	Pump



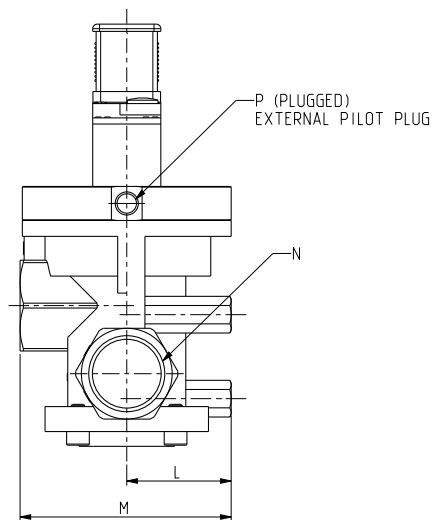
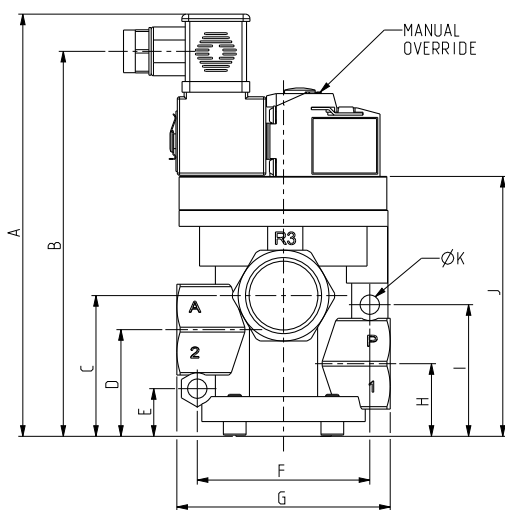
NOTE: Port 3 Cv must not be restricted

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



1/2" & 3/4" NPT 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" NPT	1/8" GTAP	6.083 (154.5)

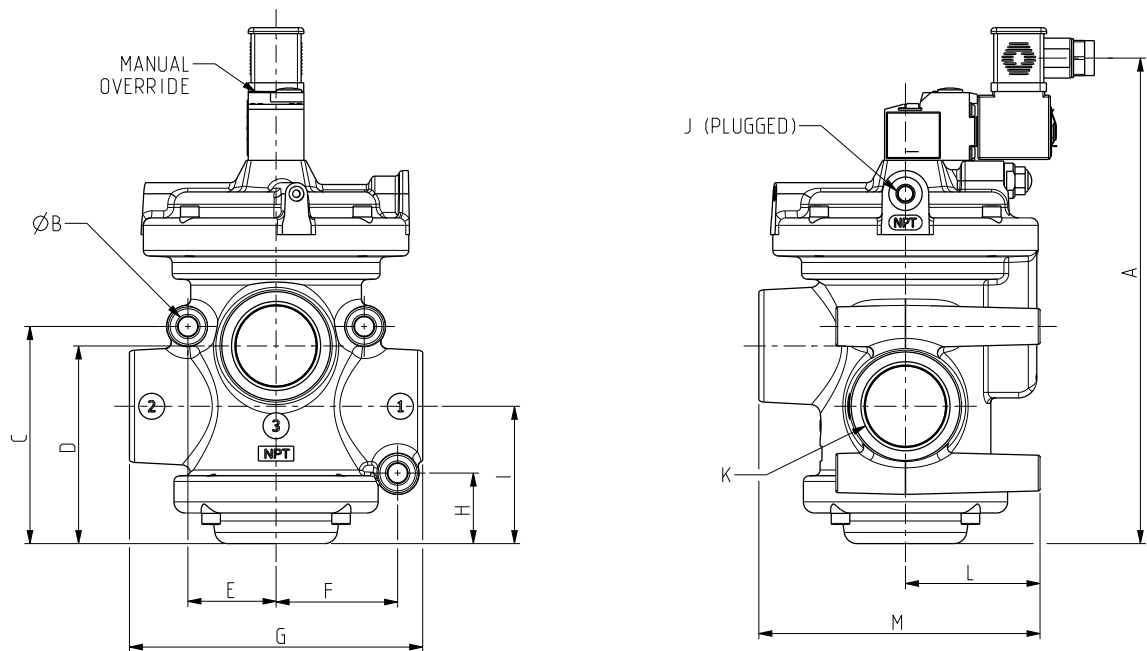


1" NPT Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
7.323 (186.0)	6.677 (169.6)	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" NPT	1/8" GTAP



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



1-1/2" NPT Dimensions: inches (mm)												
A	B	C	D	E	F	G	H	I	J	K	L	M
10.299 (261.6)	.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" GTAP	1-1/2" NPT	2.854 (72.5)	5.965 (151.5)

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

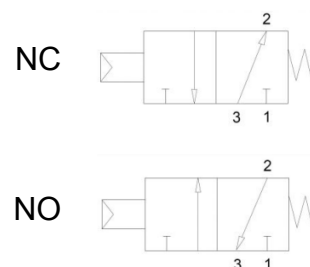
- 2 Position, 3 Way (3/2)
- Normally Closed (NC) or Normally Open (NO)
- Air pilot actuated (External Pilot)
- Diaphragm actuated
- Polyurethane diaphragm
- For lubricated or non-lubricated service

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.

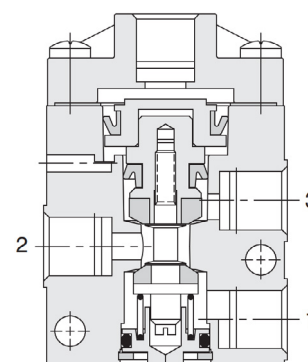


Technical Data

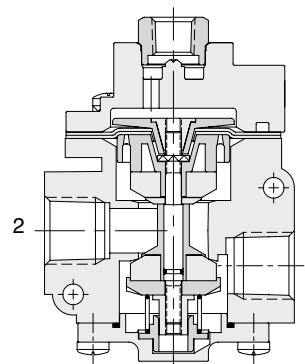
Ports (NPTF)	1/8"	1/4"	3/8"
Cv	0.84	1.56	1.8
Operating Vacuum Range	Minimum 9.8" of Hg (250 mm of Hg) Maximum 29.9" of Hg (759.5 mm of Hg)		
Pilot Range	36-145 PSIG (2.5-10 Bar)		30-145 PSIG (2-10 Bar)
Temperature Range	23°F to +158°F ambient (-5°C to +70°C ambient)		

Ports (NPTF)	1/2"	3/4"	1"	1-1/2"
Cv	4.8	6.1	12.0	33.5
Operating Vacuum Range	Minimum 9.8" of Hg (250 mm of Hg) Maximum 29.9" of Hg (759.5 mm of Hg)			
Pilot Pressure	30-145 PSIG (2-10 Bar)			
Temperature Range	23°F to + 158°F ambient (-5°C to +70°C ambient)			

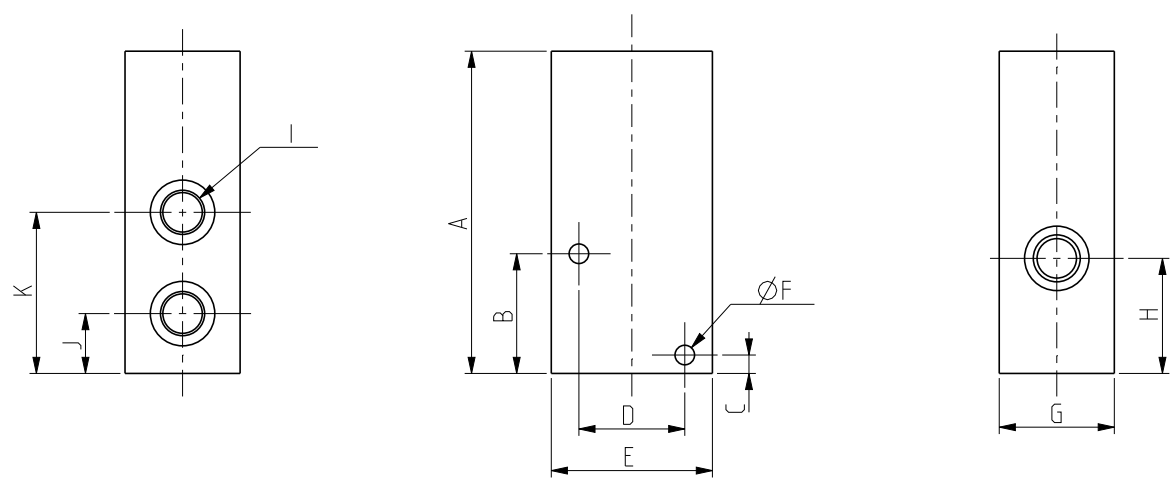
1/8" - 3/8"



1/2" - 1-1/2"

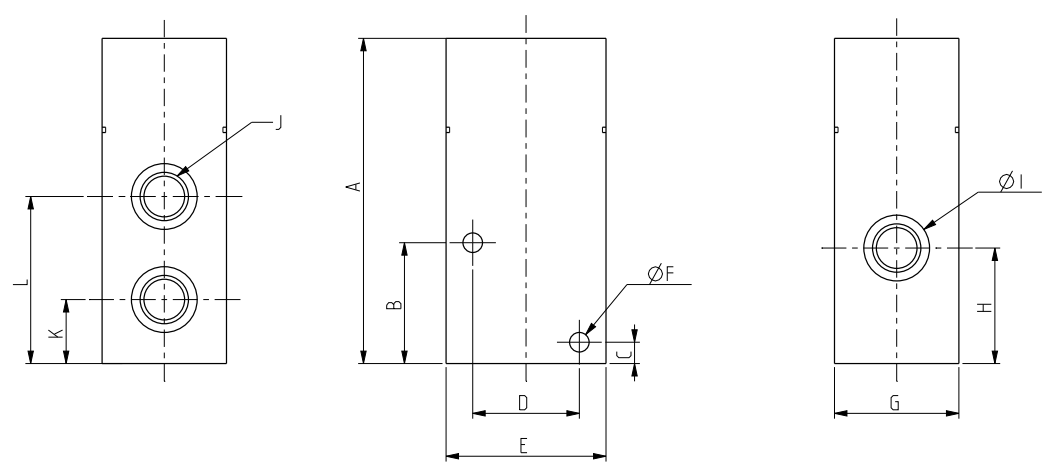


1/8" to 1/4" Dimensions for Air Pilot Actuated Vacuum Valves



1/8" NPT Dimensions: inches (mm)

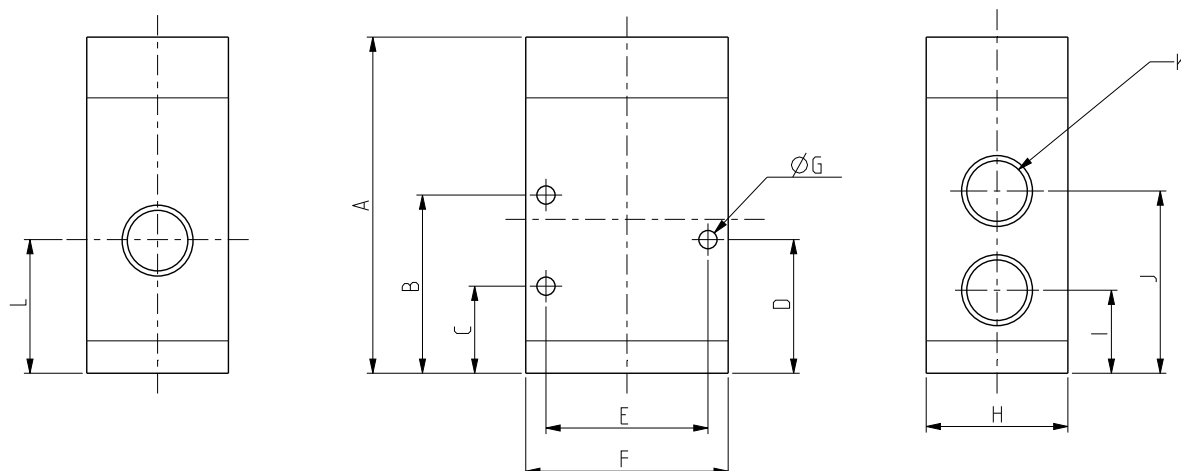
A	B	C	D	E	F	G	H	I	J	K
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8" NPT	.512 (13.0)	1.378 (35.0)



1/4" NPT Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L
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" NPT	.709 (18.0)	1.850 (47.0)

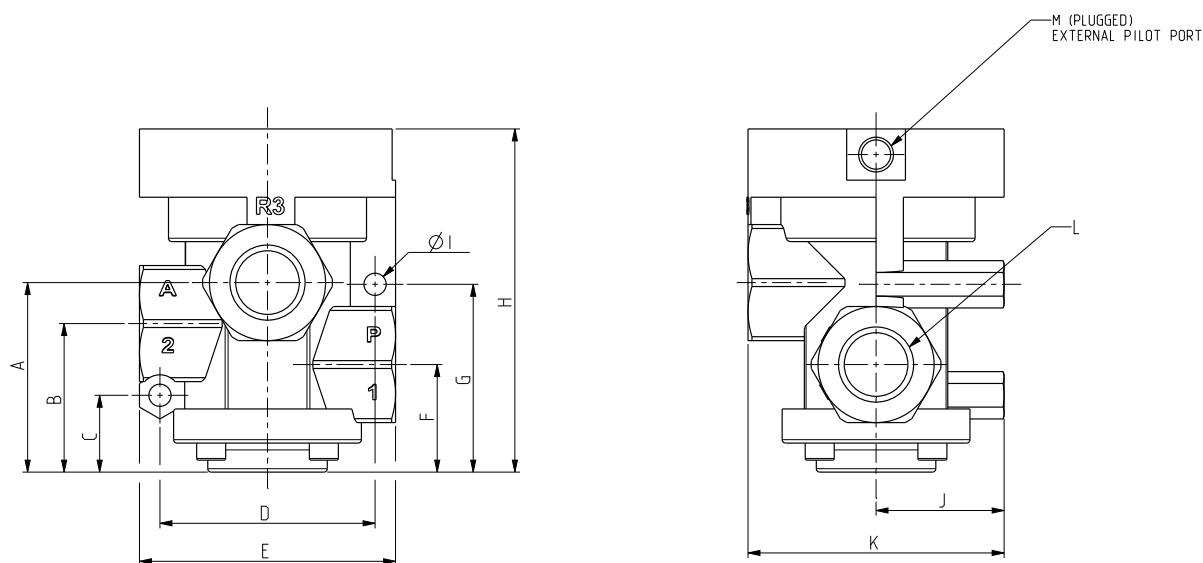
3/8" Dimensions for Air Pilot Actuated Vacuum Valves



3/8" NPT Dimensions: inches (mm)

A	B	C	D	E	F	G	H	I	J	K	L
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" NPT	1.299 (33.0)

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

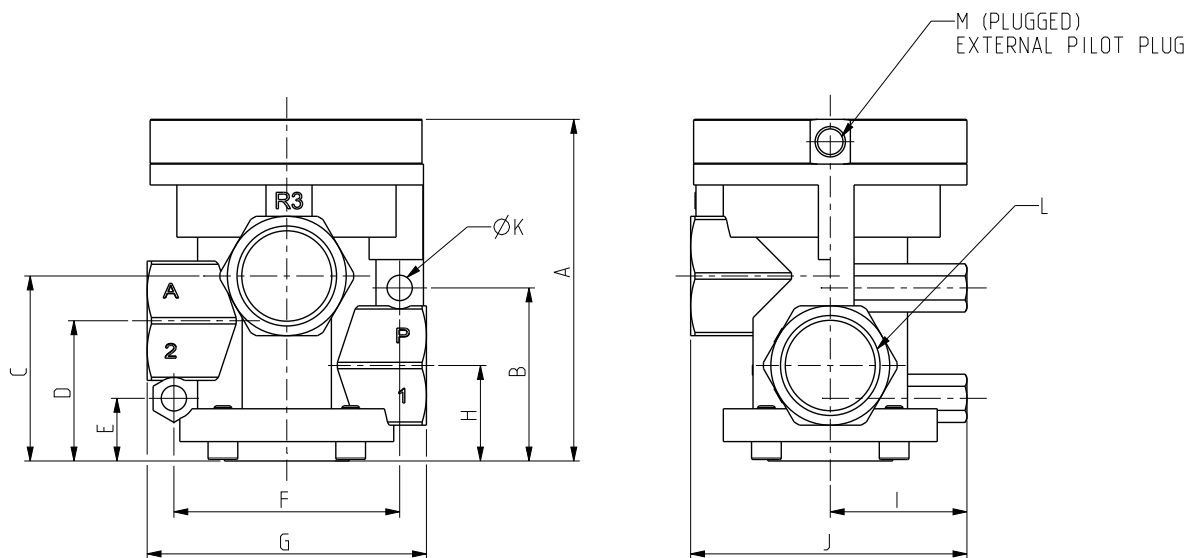


1/2" & 3/4" NPT Dimensions: inches (mm)

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" NPT	1/8" GTAP

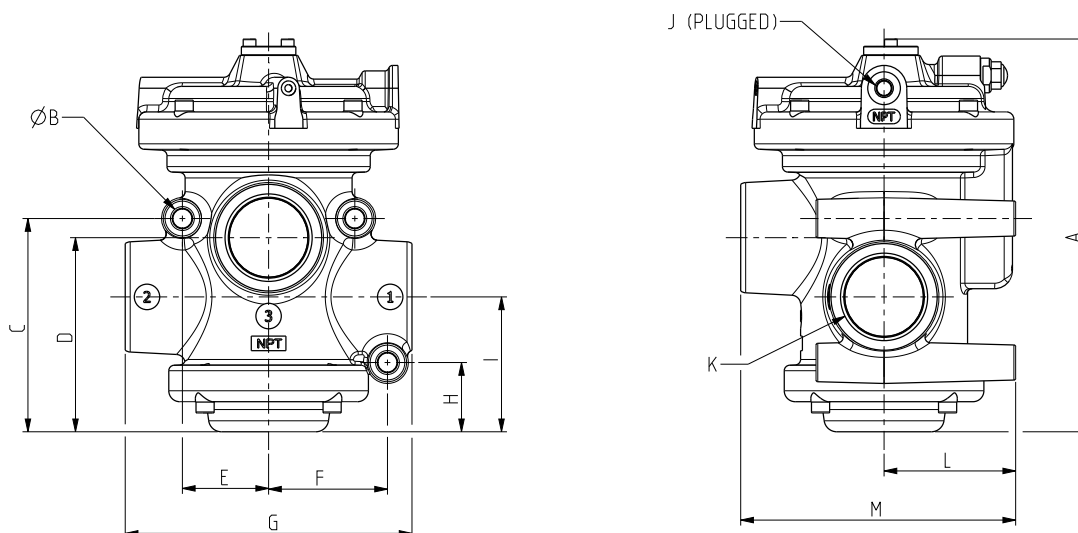


1" to 1-1/2" Dimensions for Air Pilot Actuated Vacuum Valves



1" NPT 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" NPT	1/8" GTAP



1-1/2" NPT 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" GTAP	1-1/2" NPT	2.854 (72.5)	5.965 (151.5)

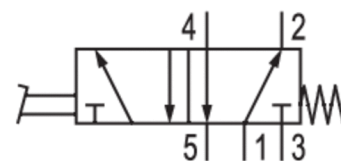
227 Series Pedal Valve

- 2 Position, 5 Way (5/2)
- Nylon shell & steel reinforced base plate
- Die cast zinc alloy valve body
- Spring return & detented models
- Large opening for foot operation

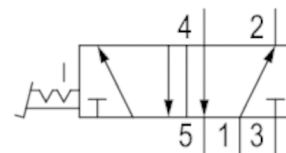


Technical Data

Ports (NPTF)	1/4" Spring	1/4" Pedal
Cv	1..36	
Maximum Operating Pressure	145 PSIG (10 Bar)	
Temperature Range	23°F to +122°F ambient (-5°C to +50°C ambient)	
Fluid Temperature Range	23°F to +122°F ambient (-5°C to +50°C ambient)	



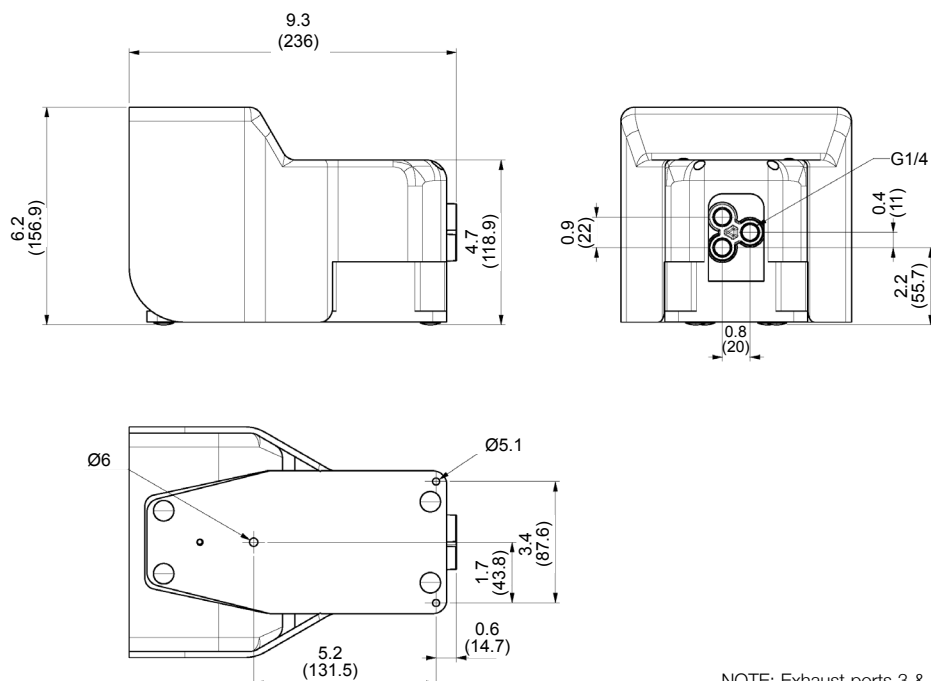
Spring Return Pedal



Detented Operation Pedal

Operating Data

Foot Pedal Description	Part No.
1/4" GTAP Spring Return	G227A34F20A0000
1/4" GTAP Without Spring	G227A34D20A0000

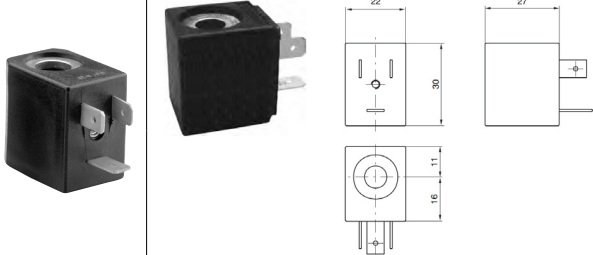


NOTE: Exhaust ports 3 & 5 are located under the cover

Pedal Valve Dimensions: inches (mm)

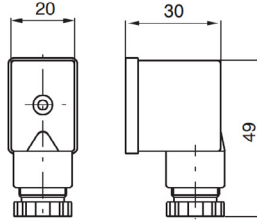


22m Coil (for 1/8", 1/4" & 3/8" sizes)

Type	Overall Dimensions	*Duty Cycle	Consumption		Tolerance		Mass Kg	Rated Voltage	Part Number
			Continuous	In-Rush	Frequency	Voltage			
		100%	5W	5W	—	±10%	0.54	12VDC	M200717A00
								24VDC	M200718A00
		100%	8VA	14VA	10%	±10%	0.54	110VAC 50-60HZ	M200720A00

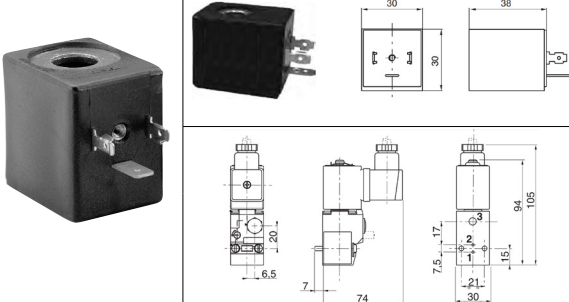
*Under continuous service a maximum temperature will not compromise the functioning of the coil provided that the working position is ventilated.

PLUG-IN CONNECTOR ASSEMBLIES



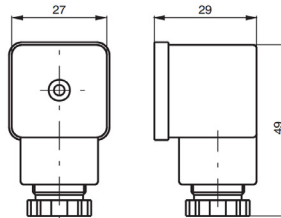
Plug Connector Description	Part No.
Black Plug Assembly	M200727A00
Plug assembly with 24V Light	M200728A00
Plug assembly with 110V Light	M200729A00

30mm Coil (for 1/2", 3/4", 1" & 1-1/2" sizes)

Type	Overall Dimensions	Ports (NPTF)	*Duty Cycle	Consumption		Tolerance		Mass Kg	Rated Voltage	Part Number
				Continuous	In-Rush	Frequency	Voltage			
		1/2" & 3/4"	100%	4W	4W	—	±10%	0.11	24VDC	M200723A00
				9VA	14VA	50-60HZ	±10%		110VAC	M200725A00
		1" & 1-1/2"	100%	3W	3W	—	±10%	0.27	24VDC	43005642
				4VA	9VA	50-60HZ	±10%		115V/50 120V/60	43005617

*Under continuous service a maximum temperature will not compromise the functioning of the coil provided that the working position is ventilated.

PLUG-IN CONNECTOR ASSEMBLIES



Plug Connector Description	Part No.
Black Plug Assembly	M200731A00
Plug assembly with 24V Light	M200732A00
Plug assembly with 110V Light	M200733A00

Pipe Plug - NAF Series	Part No.
1/8"	129-100
1/4"	129-101
3/8"	129-102

Repair Kits for Compressed Air and Vacuum Valves

Port Size	Compressed Air Valves	Vacuum Valves
1/8"	M200795A00	M200796A00
1/4"	M200792A00	M200793A00
3/8"	M200797A00	M200798A00
1/2"	M200788A00	M200789A00
3/4"	M200790A00	M200791A00
1"	M200786A00	M200787A00
1-1/2"	M200794A00	

Standard Poppet Valve Weight Requirements

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

Solenoid Pilot for Vacuum

Port (NPT)	Function	Weight	
		Lbs	Kg
3/8"	NC / NO	0.93	0.42
1/2"	NC / NO	2.56	1.16
3/4"	NC / NO	2.31	1.05
1"	NC / NO	2.47	1.12
1-1/2"	NC / NO	7.12	3.228

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

Air Pilot for Vacuum

Port (NPT)	Function	Weight	
		Lbs	Kg
3/8"	NC / NO	0.79	0.36
1/2"	NC / NO	2.43	1.1
3/4"	NC / NO	2.18	0.99
1"	NC / NO	2.34	1.06
1-1/2"	NC / NO	6.98	3.168



Poppet Valve FAQs

1. Are different coils available on the smaller sized poppet valves?
Yes, but a special part number is required.
2. Is the manual override held captive in place?
Yes, the solenoid stem itself locates and holds the manual override in place.
3. Is there an option code for external piloting solenoid air valves?
The option code is 14A.
4. What are these valves best suited for?
These valves are particularly suitable for applications where high flow and cycle rates are required.
5. Is a lower watt solenoid operator available?
Yes, but a special part number is required.
6. Is field conversion from internal to external pilot supply possible?
Yes, in certain cases. Please consult factory.
8. Is it possible to convert NC to NO?
Yes, in certain cases. Please consult factory.
9. What is the cycle life of the poppet valves?
Recent tests have recorded 9 million cycles.
10. Are FKM seals available with the poppet valve?
No, they are not available.
11. Are poppet valves strictly used for air?
Inert gases can be used with these valves.
12. Can the internally piloted vacuum valve operate in an “open” circuit?
No, as stated, 9.8" of Hg is the minimum required.

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