

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	
Connection Type	8 = NPT										Voltage
¹ G = G											00 = None
Product Series		227 = Poppet Valve									C7 = 110-120 VAC/50-60 Hz
Revision			A = Initial Release								F3 = 12 VDC
Item Type				1 = Poppet for Compressed Air							F1 = 24 VDC
³ 1 = Poppet for Vacuum (requires External Pilot option 14A)				2 = Foot Pedal							Options
Function											A00 = None
⁴ G = 2 Position, 2 Way (2/2) NC											11M = COVER WITH NO OVERRIDE ACCESS
³ P = 2 Position, 3 Way (3/2) NC											14A = EXTERNAL PILOT (standard on Air Pilot only valves)
³ P = 2 Position, 3 Way (3/2) NO											60T = WITH FIELD INSTALLABLE ELECT. CONNECTOR(S) W/O LIGHT
4 = 2 Position, 4 Way (5/2) (Foot Pedal Version ONLY)											66W = WITH FIELD INSTALLABLE ELECT. CONNECTOR(S) W/LIGHT
Actuation											68C = 11M+14A
A = Solenoid Pilot w/ Spring Return											68D = 11M+66W
P = Air Pilot w/Spring Return											68E = 14A+66W
F = Foot Pedal w/ Spring Return											68F = 11M+60T
D = Foot Pedal w/out Spring											68G = 14A+60T
											69A = 11M+14A+66W
											69B = 11M+14A+60T
											Wiring
											0 = None
											1 = DIN Plug
											Port Size
											⁴ 1 = 1/8
											³ 5 = 3/4
											¹ 42 = 1/4
											³ 6 = 1
											⁴ 3 = 3/8
											8 = 1-1/2
											³ 4 = 1/2

¹Foot Pedal only offered with G 1/4 ports

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 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		
Coil Class	B		

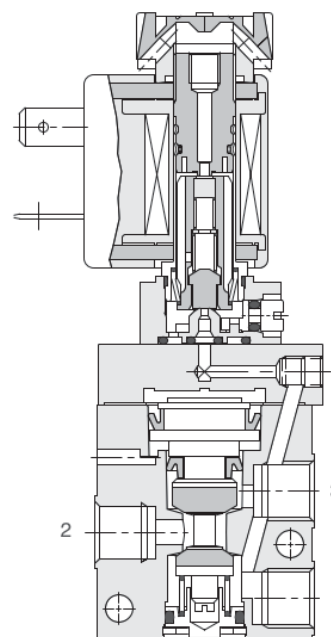
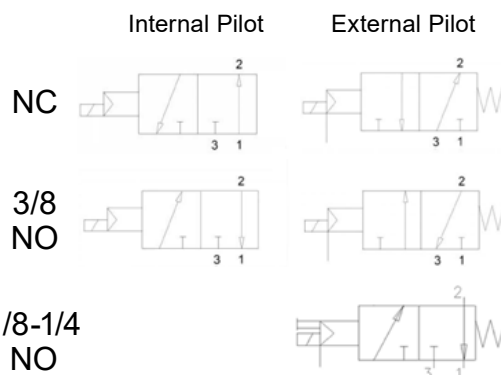
Operating Data

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

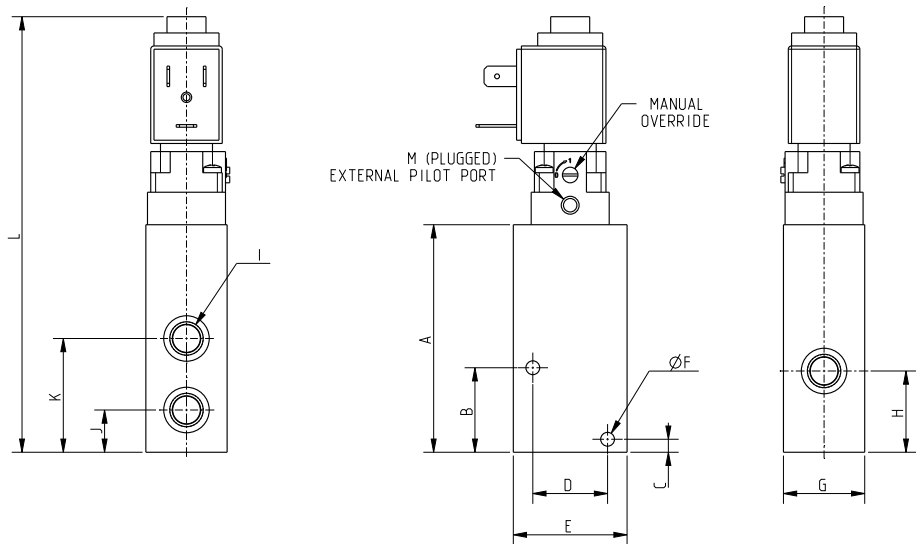
Plug Specifications: NEMA 4, IP 65 with plug-in connector
Solenoid Rating: Continuous Duty

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

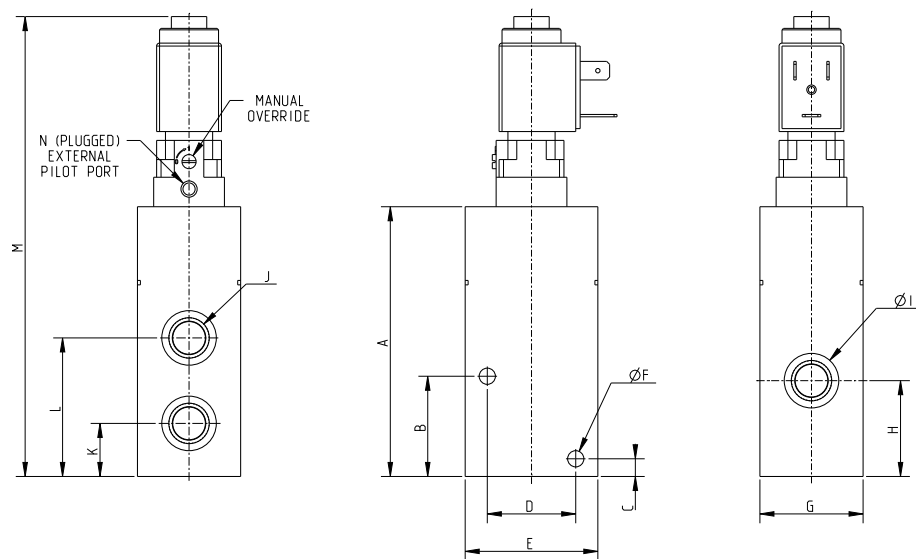


1/8" Dimensions for Solenoid Air Pilot Actuated Vacuum Valves



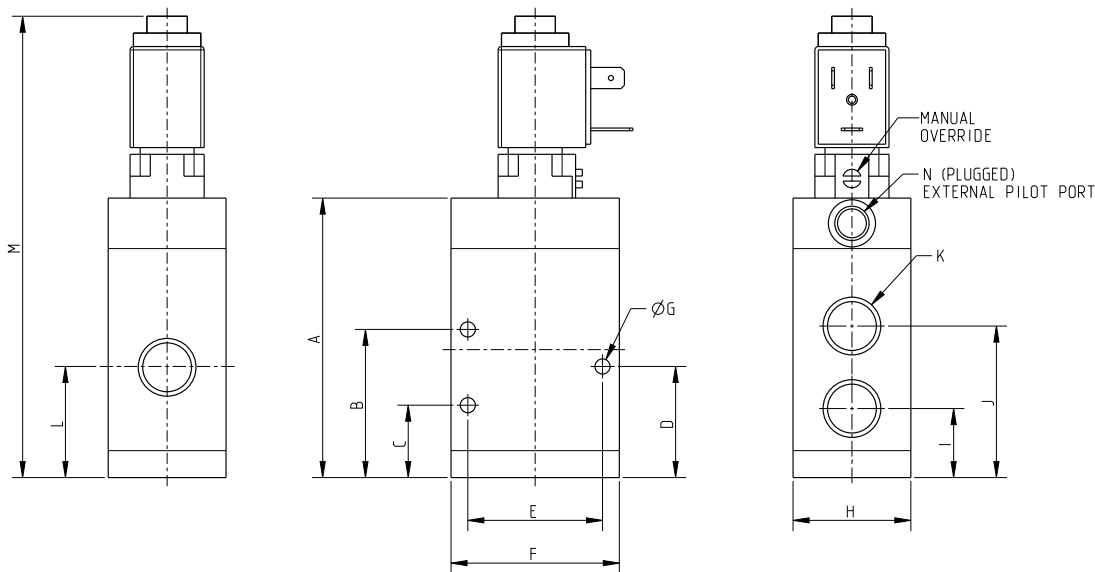
1/8" Dimensions: inches (mm)												
A	B	C	D	E	F	G	H	I	J	K	L	M
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8"	.512 (13.0)	1.378 (35.0)	5.276 (134.0)	M5 THREAD

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



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)	M5 THREAD

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



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)	1.968 (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 Vacuum Valves - 1/2" to 1-1/2"

- Solenoid External Air Pilot Actuated
- 2 Position, 2 Way (2/2) and 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)			50-145 PSIG (3.5-10 Bar)
Temperature Range	23°F to +113°F ambient (-5°C to +45°C ambient)			
Coil Size	30mm			
Coil Class	H			

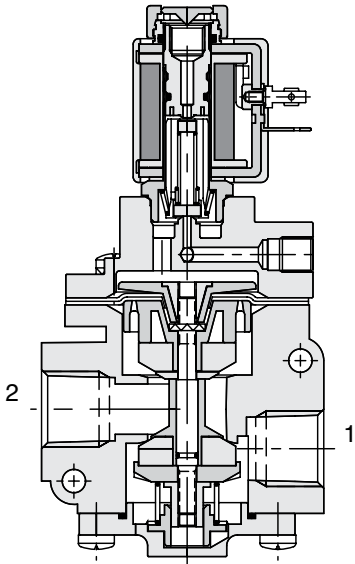
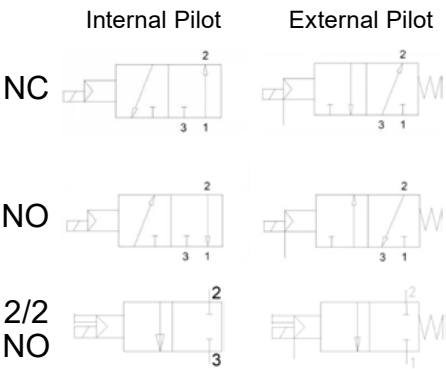
Operating Data

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

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

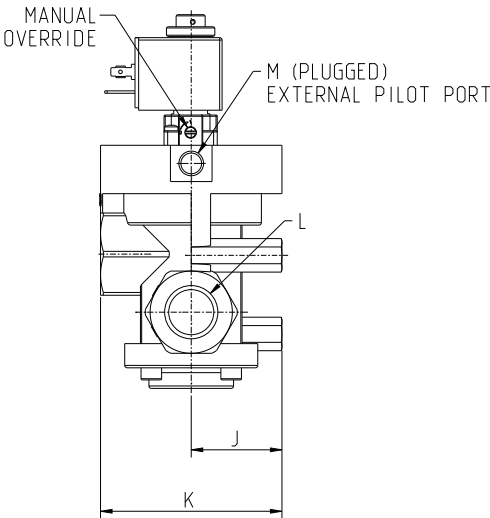
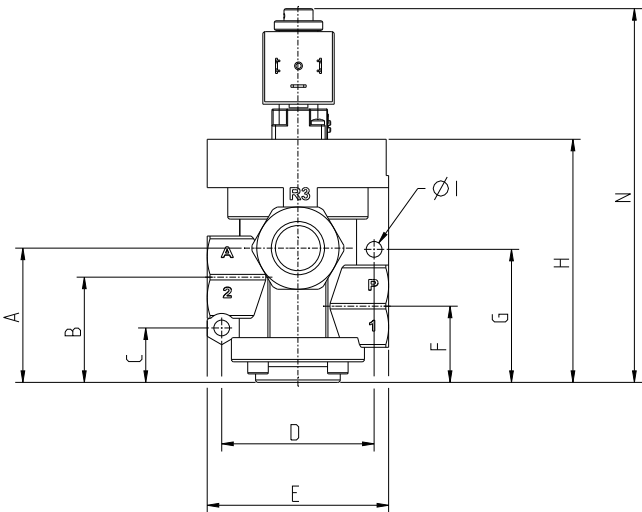
Vacuum Valve Connections

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



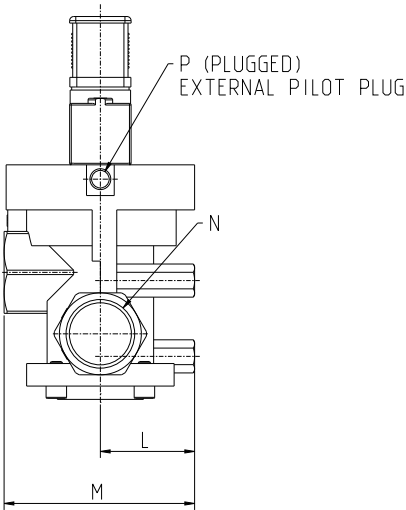
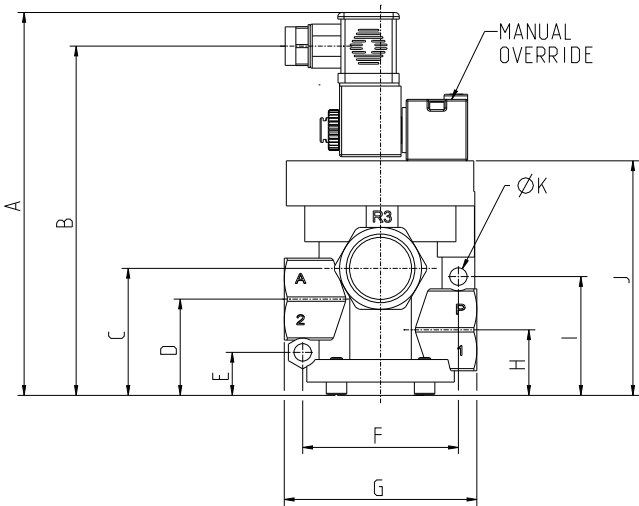
NOTE: Port 3 Cv must not be restricted

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



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

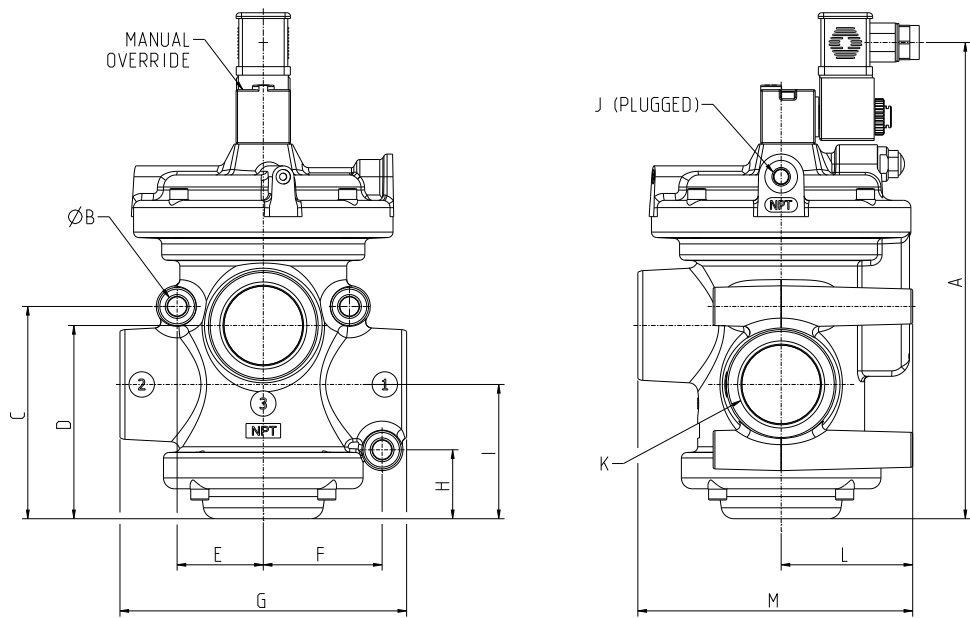
A	B	C	D	E	F	G	H	I	J	K	L	M	N
2.185 (55.5)	1.713 (43.5)	.886 (22.5)	2.480 (63.0)	2.953 (75.0)	1.240 (31.5)	2.165 (55.0)	3.957 (100.5)	.256 (6.5)	1.476 (37.5)	2.953 (75.0)	1/2" TO 3/4"	1/8"	6.083 (154.5)



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 Vacuum Valves



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 Vacuum 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)
- Diaphragm actuated
- Polyurethane diaphragm
- For lubricated or non-lubricated service

NOTE:

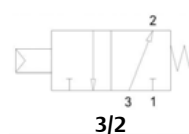
3/2 valve (1/8" to 3/8") can be converted to a 2/2 valve by inserting a pipe plug into the exhaust port

NOTE:

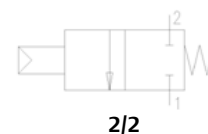
1/2" to 1-1/2" valves cannot be converted to a 2/2 valve. If a 2/2 valve is required, it must be ordered as such.



NC



3/2



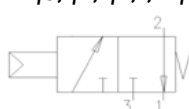
2/2

NO

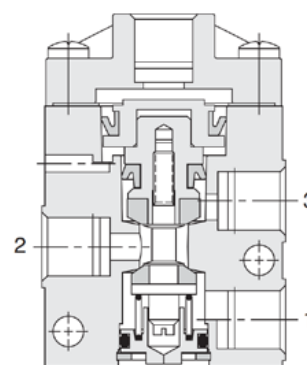


3/8, 1/2, 3/4, 1, 1-1/2

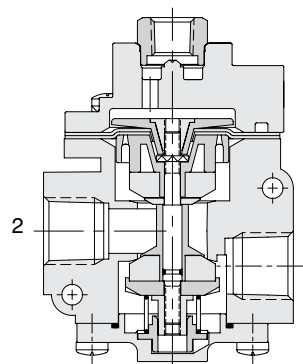
1/8-1/4
NC



1/8" - 3/8"



1/2" - 1-1/2"

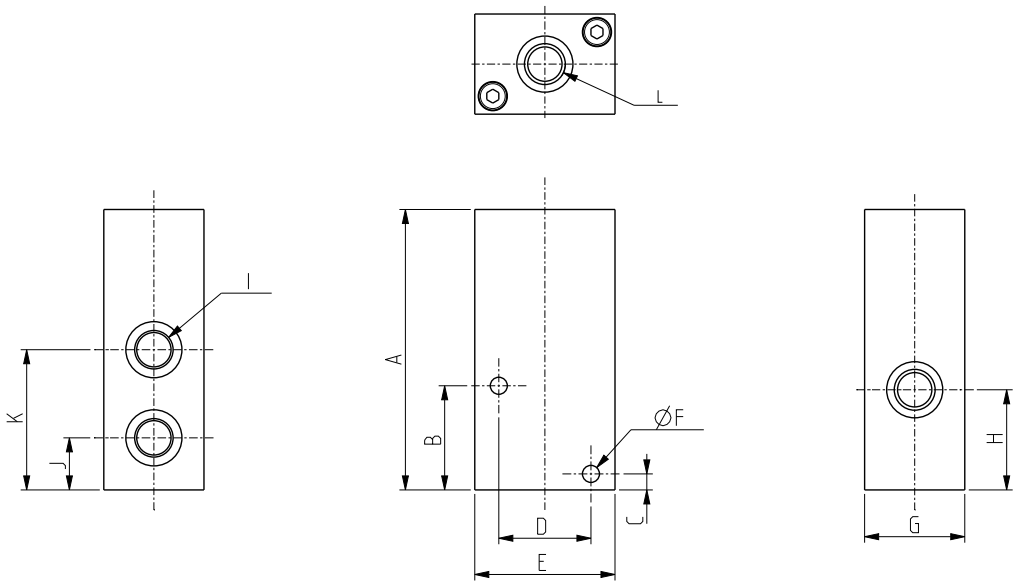


Technical Data

Ports (NPTF)	1/8"	1/4"	3/8"
Cv	0.84	1.56	1.8
Operating 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)		

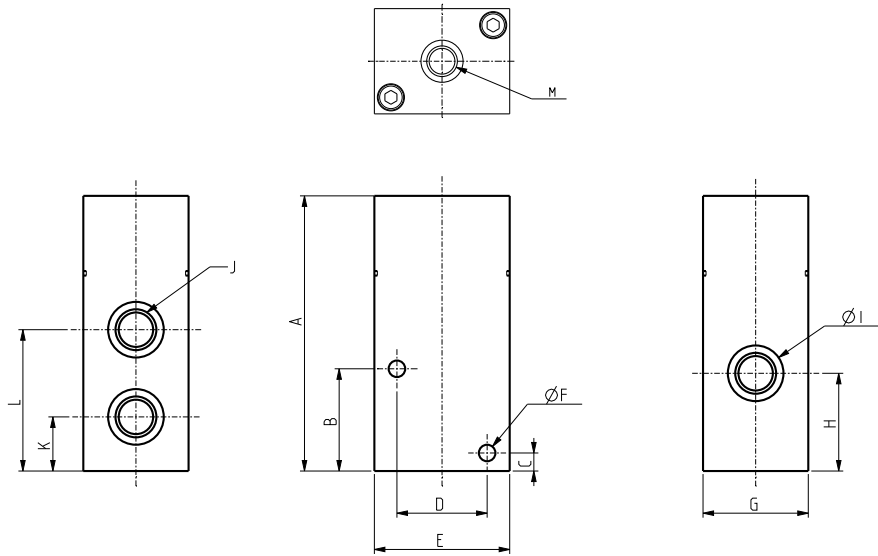
Ports (NPTF)	1/2"	3/4"	1"	1-1/2"
Cv	4.8	6.1	12.0	33.5
Operating Vacuum Range	Minimum 9.8" of Hg (250 mm of Hg) Maximum 29.9" of Hg (759.5 mm of Hg)			
Pilot Pressure	30-145 PSIG (2-10 Bar)			50-145 PSIG (3.5-10 Bar)
Temperature Range	23°F to + 158°F ambient (-5°C to +70°C ambient)			

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



1/8" Dimensions: inches (mm)

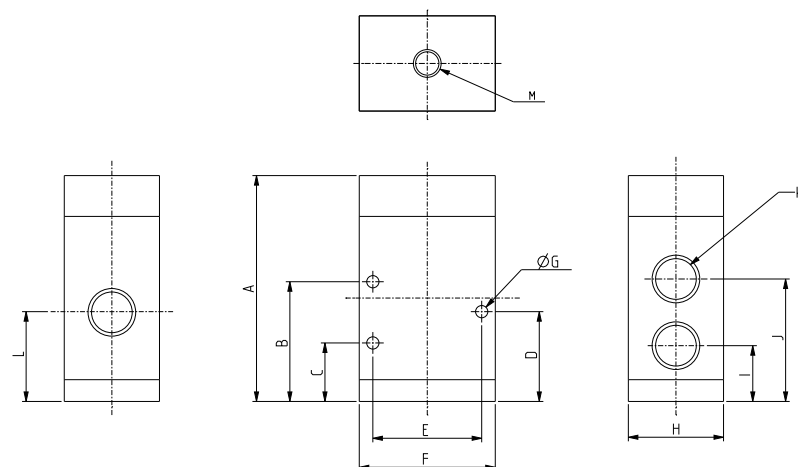
A	B	C	D	E	F	G	H	I	J	K	L
2.756 (70.0)	1.024 (26.0)	.157 (4.0)	.906 (23.0)	1.378 (35.0)	.167 (4.25)	.984 (25)	.984 (25)	1/8"	.512 (13.0)	1.378 (35.0)	1/8"



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"

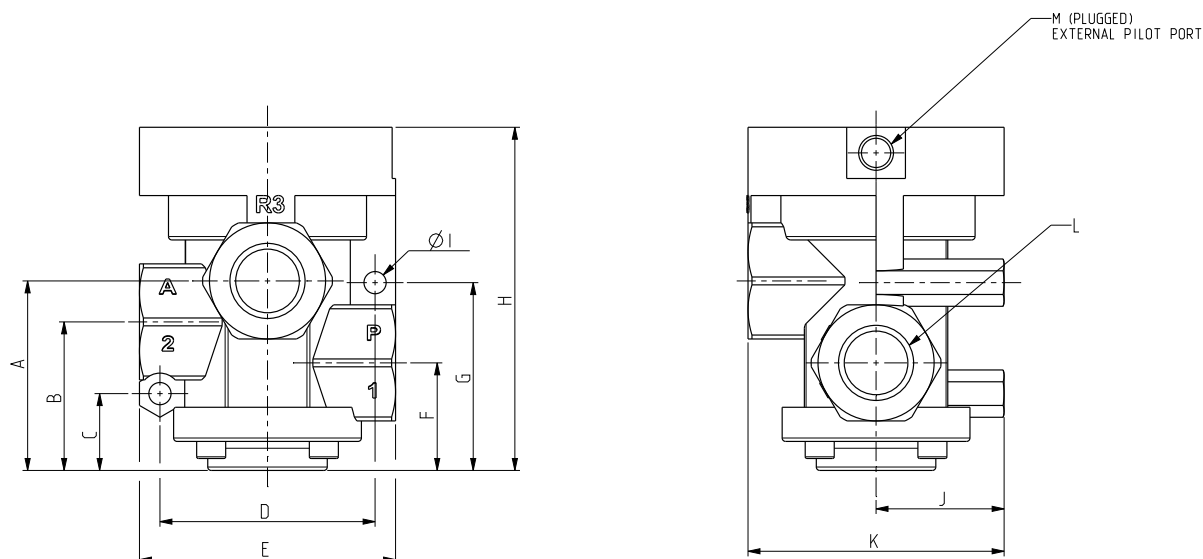
3/8" Dimensions for Air Pilot Actuated Vacuum Valves



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"

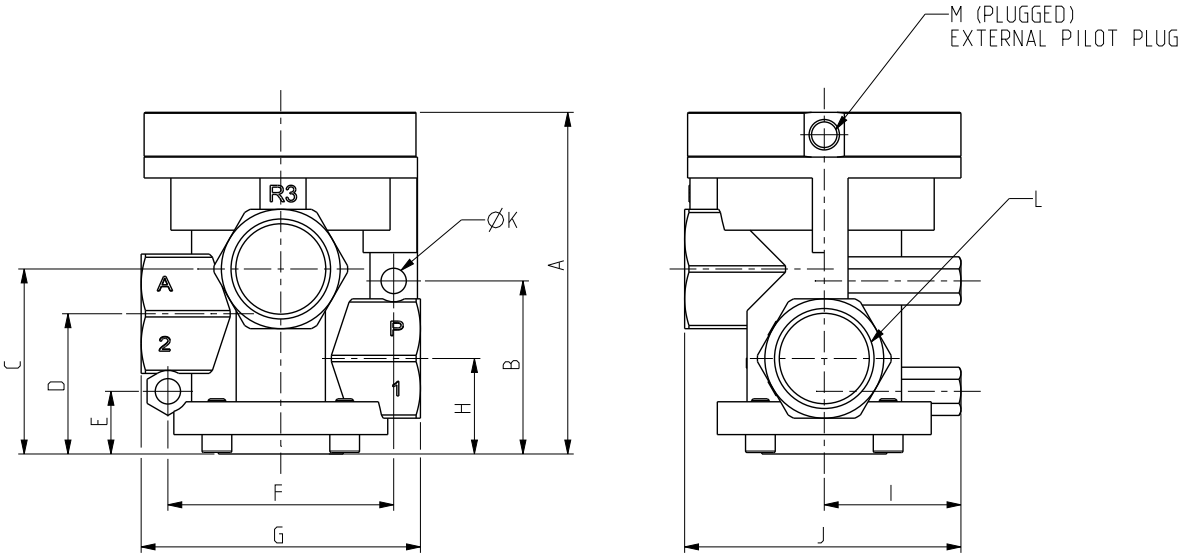
1/2" & 3/4" Dimensions for Air Pilot Actuated Vacuum Valves



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

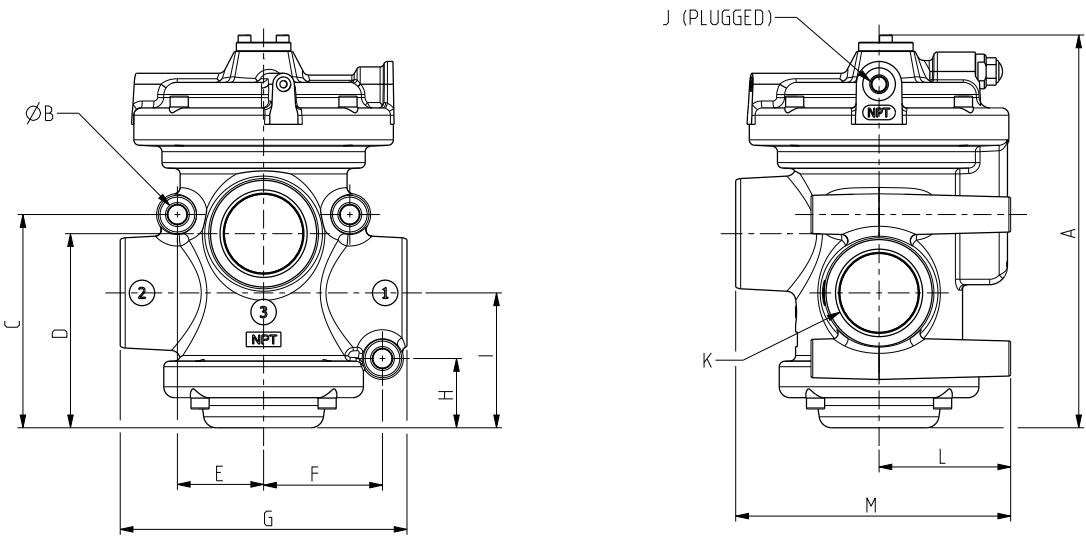
A	B	C	D	E	F	G	H	I	J	K	L	M
2.185 (55.5)	1.713 (43.5)	.886 (22.5)	2.480 (63.0)	2.953 (75.0)	1.240 (31.5)	2.165 (55.0)	3.957 (100.5)	.256 (6.5)	1.476 (37.5)	2.953 (75.0)	1/2" TO 3/4"	1/8"

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



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: 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 Vacuum Valves

Port Size	Vacuum Valves
1/8"	M200795A00
1/4"	M200793A00
3/8"	M200798A00
1/2"	M200789A00 (Internal Pilot) M200788A00 (External Pilot)
3/4"	
1"	M200838A00 (Internal Pilot) M200786A00 (External Pilot)
1-1/2"	M200794A00

Standard Poppet Valve Weight Requirements

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 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