



NEW! MAXIMATIC® AIR PILOT VALVES

Maximatic®



MAXIMATIC AIR PILOT VALVES

Clippard's Maximatic Air Pilot Valves are available in 3- and 4-way configurations in port sizes from #10-32 thread to 1/2" NPT. They are spool type valves with single or double air pilots with pressure ranges from 0 to 125 psig. Some of the many features of the valve include small size, high flow and competitive pricing.

These valves offer maximum flow in a small package, and are constructed of aluminum, stainless steel and thermoplastic materials. They have a 1/8" NPT external pilot port.

This new line of valves is especially well-suited for packaging, factory automation and OEM fluid power applications.

Type: Spool

Medium: Air (40 micron filtration) and Inert Gas

Operating Range: Single Air Pilot: 20 to 125 psig; all others: see chart below

Materials: Aluminum, Stainless Steel, Thermoplastic

Mounting: Body Ported, Manifold Mount

Maximum Pressure: 125 psig

Temperature Range: 32° to 150°F (0 to 65°C)

Seals: Buna-N

Conforms to ISO 19973-2 test standards.

3- & 4-Way Valves

Port	Cv	Flow Rate	
		@ 50 psig	@ 100 psig
#10-32	0.58	16 scfm	27 scfm
1/8" NPT	0.67	18 scfm	31 scfm
1/4" NPT	0.89	26 scfm	49 scfm
3/8" NPT	1.68	51 scfm	93 scfm
1/2" NPT	2.79	91 scfm	171 scfm

Minimum Pilot Pressure

	Single Pilot		Double Pilot		Three Position	
Operating Pressure (psig)	20	80	20	80	20	80
Pilot Pressure (psig)	20	35	5	8	20*	20*

* 30 on MMA-41 Series

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3-Way Valves

Series No.	Inlet	Ports Outlet	Exhaust	Function	Cv	Flow @ 100 psig
MMA-31NAS	#10-32	#10-32	#10-32	3/2	0.58	27 scfm
MMA-31PAS	1/8" NPT	1/8" NPT	1/8" NPT	3/2	0.67	31 scfm
MMA-32QAS	1/4" NPT	1/4" NPT	1/8" NPT	3/2	0.89	49 scfm
MMA-33WAS	3/8" NPT	3/8" NPT	1/4" NPT	3/2	1.68	93 scfm
MMA-34ZAS	1/2" NPT	1/2" NPT	1/2" NPT	3/2	2.79	171 scfm
MMA-31NAA	#10-32	#10-32	#10-32	3/2	0.58	27 scfm
MMA-31PAA	1/8" NPT	1/8" NPT	1/8" NPT	3/2	0.67	31 scfm
MMA-32QAA	1/4" NPT	1/4" NPT	1/8" NPT	3/2	0.89	49 scfm
MMA-33WAA	3/8" NPT	3/8" NPT	1/4" NPT	3/2	1.68	93 scfm
MMA-34ZAA	1/2" NPT	1/2" NPT	1/2" NPT	3/2	2.79	171 scfm

4-Way Valves

Series No.	Inlet	Ports Outlet	Exhaust	Function	Cv	Flow @ 100 psig	Spool Configuration		
							Closed Center	Exhaust Center	Pressure Center
MMA-41NAS	#10-32	#10-32	#10-32	5/2	0.58	27 scfm			
MMA-41PAS	1/8" NPT	1/8" NPT	1/8" NPT	5/2	0.67	31 scfm			
MMA-42QAS	1/4" NPT	1/4" NPT	1/8" NPT	5/2	0.89	49 scfm			
MMA-43WAS	3/8" NPT	3/8" NPT	1/4" NPT	5/2	1.68	93 scfm			
MMA-44ZAS	1/2" NPT	1/2" NPT	1/2" NPT	5/2	2.79	171 scfm			
MMA-41NAA	#10-32	#10-32	#10-32	5/2	0.58	27 scfm			
MMA-41PAA	1/8" NPT	1/8" NPT	1/8" NPT	5/2	0.67	31 scfm			
MMA-42QAA	1/4" NPT	1/4" NPT	1/8" NPT	5/2	0.89	49 scfm			
MMA-43WAA	3/8" NPT	3/8" NPT	1/4" NPT	5/2	1.68	93 scfm			
MMA-44ZAA	1/2" NPT	1/2" NPT	1/2" NPT	5/2	2.79	171 scfm			
MMA-41NAAC	#10-32	#10-32	#10-32	5/3	0.50	23 scfm	•		
MMA-41PAAC	1/8" NPT	1/8" NPT	1/8" NPT	5/3	0.50	23 scfm	•		
MMA-42QAAC	1/4" NPT	1/4" NPT	1/8" NPT	5/3	0.89	49 scfm	•		
MMA-43WAAC	3/8" NPT	3/8" NPT	1/4" NPT	5/3	1.00	72 scfm	•		
MMA-44ZAAC	1/2" NPT	1/2" NPT	1/2" NPT	5/3	1.68	93 scfm	•		
MMA-41NAAP	#10-32	#10-32	#10-32	5/3	0.50	23 scfm			•
MMA-41PAAP	1/8" NPT	1/8" NPT	1/8" NPT	5/3	0.50	23 scfm			•
MMA-42QAAP	1/4" NPT	1/4" NPT	1/8" NPT	5/3	0.89	49 scfm			•
MMA-43WAAP	3/8" NPT	3/8" NPT	1/4" NPT	5/3	1.00	72 scfm			•
MMA-44ZAAP	1/2" NPT	1/2" NPT	1/2" NPT	5/3	1.68	93 scfm			•
MMA-41NAAE	#10-32	#10-32	#10-32	5/3	0.50	23 scfm		•	
MMA-41PAAE	1/8" NPT	1/8" NPT	1/8" NPT	5/3	0.50	23 scfm		•	
MMA-42QAAE	1/4" NPT	1/4" NPT	1/8" NPT	5/3	0.89	49 scfm		•	
MMA-43WAAE	3/8" NPT	3/8" NPT	1/4" NPT	5/3	1.00	72 scfm		•	
MMA-44ZAAE	1/2" NPT	1/2" NPT	1/2" NPT	5/3	1.68	93 scfm		•	



NEW! MAXIMATIC® 3-WAY VALVES

2-Position Spring Return & Double Valves



MMA-33WAA



MMA-33WAS

Maximatic® 3-way air piloted valves are either double pilot or single pilot, spring return in #10-32 thread to 1/2" NPT port sizes. These air piloted valves have 1/8" NPT external pilot ports.

Operating Range: Single Air Pilot: 20 to 125 psig; Double Air Pilot: 0 to 125 psig. Refer to Minimum Pilot Pressure Chart on Page 130.

Pilot Pressure: Single Air Pilot: ≥ 20 psig; Double Air Pilot: ≥ 5 psig

Number of Ports: 3

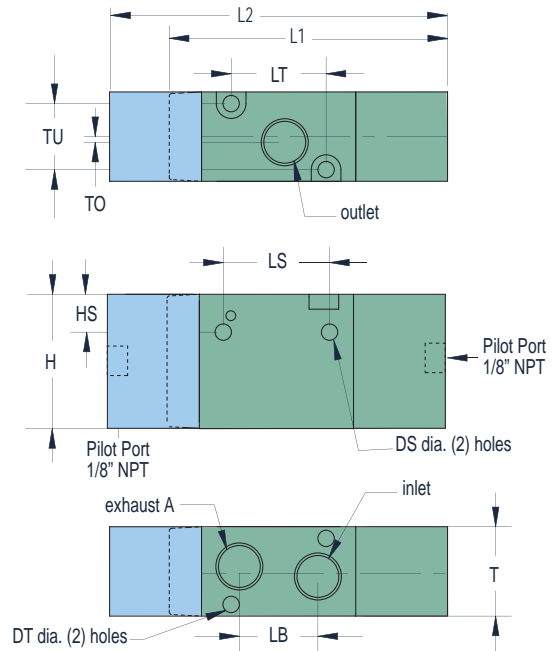
Mounting: Body Ported, Manifold Mount



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Base Mounted Manifolds
For a complete offering of Manifolds and other accessories, see page 135.

Dim.	MMA-31	MMA-32	MMA-33	MMA-34
DS	0.13 (3.3)	0.17 (4.3)	0.17 (4.3)	0.22 (5.6)
DT	0.13 (3.3)	0.13 (3.3)	0.17 (4.3)	0.17 (4.3)
H	1.07 (27.2)	1.38 (35.1)	1.58 (40.1)	1.97 (50.0)
HS	0.30 (7.6)	0.31 (7.9)	0.41 (10.4)	0.53 (13.5)
L1	2.23 (56.6)	3.06 (77.7)	3.17 (80.5)	3.80 (96.5)
L2	2.71 (68.8)	3.46 (87.9)	3.80 (96.5)	4.72 (119.9)
LB	0.63 (16.0)	0.71 (18.0)	0.94 (23.9)	1.42 (36.1)
LS	0.83 (21.1)	0.98 (24.9)	1.18 (30.0)	2.01 (51.1)
LT	0.75 (19.1)	1.30 (33.0)	1.38 (35.1)	1.73 (43.9)
T	0.71 (18.0)	0.86 (22.1)	1.06 (26.9)	1.34 (34.0)
TO	0.06 (1.5)	0.06 (1.5)	0.16 (4.1)	0.16 (4.1)
TU	0.71 (18.0)	0.87 (22.1)	1.06 (26.9)	1.34 (34.0)



Spring Return Valves		Double Air Pilot Valves		Inlet	Outlet	Exhaust	Cv/scfm*
MMA-31NAS		MMA-31NAA		#10-32	#10-32	#10-32	0.58/27
MMA-31PAS		MMA-31PAA		1/8" NPT	1/8" NPT	1/8" NPT	0.67/31
MMA-32QAS		MMA-32QAA		1/4" NPT	1/4" NPT	1/8" NPT	0.89/49
MMA-33WAS		MMA-33WAA		3/8" NPT	3/8" NPT	1/4" NPT	1.68/93
MMA-34ZAS		MMA-34ZAA		1/2" NPT	1/2" NPT	1/2" NPT	2.79/171

* scfm based on flow @ 100 psig



2-Position Spring Return & Double Valves



Maximatic® 4-way air piloted valves are either double pilot or single pilot, spring return in #10-32 thread to 1/2" NPT port sizes. These air piloted valves have 1/8" NPT pilot ports.

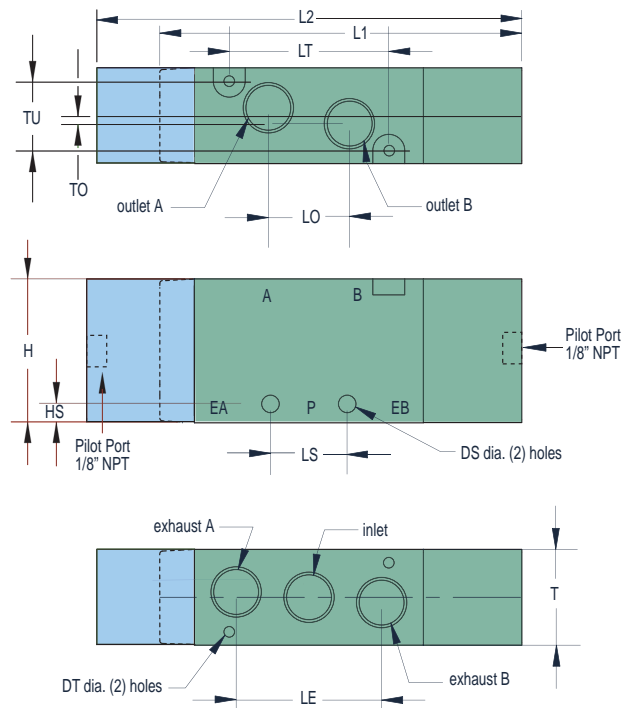
Operating Range: Single Air Pilot: 20 to 125 psig, Double Air Pilot: 0 to 125 psig. Refer to Minimum Pilot Pressure Chart on Page 130.

Pilot Pressure: Single Air Pilot: ≥ 20 psig; Double Air Pilot: ≥ 5 psig

Number of Ports: 5

Mounting: Body Ported, Manifold Mount

Dim.	MMA-41	MMA-42	MMA-43	MMA-44
DS	0.13 (3.3)	0.17 (4.3)	0.17 (4.3)	0.21 (5.3)
DT	0.13 (3.3)	0.13 (3.3)	0.17 (4.3)	0.17 (4.3)
H	1.07 (27.2)	1.38 (35.1)	1.58 (40.1)	1.97 (50.0)
HS	0.16 (4.1)	0.28 (7.1)	0.26 (6.6)	0.29 (7.4)
L1	2.71 (68.8)	3.06 (77.7)	3.76 (95.5)	4.87 (123.7)
L2	3.16 (80.3)	3.62 (91.9)	4.37 (111.0)	5.43 (137.9)
LE	1.09 (27.7)	1.42 (36.1)	1.77 (45.0)	2.48 (63.0)
LO	0.63 (16.0)	0.74 (18.8)	0.96 (24.4)	1.42 (36.1)
LS	0.63 (16.0)	0.98 (24.9)	0.95 (24.1)	1.11 (28.2)
LT	1.18 (30.0)	1.40 (35.6)	1.97 (50.0)	2.82 (71.6)
T	0.71 (18.0)	0.86 (21.8)	1.06 (26.9)	1.34 (34.0)
TO	0.11 (2.8)	0.13 (3.3)	0.16 (4.1)	0.19 (4.8)
TU	0.50 (12.7)	0.65 (16.5)	0.80 (20.3)	1.07 (27.2)



Spring Return Valves		Double Air Pilot Valves		Inlet	Outlet	Exhaust	Cv/scfm*
MMA-41NAS		MMA-41NAA		#10-32	#10-32	#10-32	0.58/27
MMA-41PAS		MMA-41PAA		1/8" NPT	1/8" NPT	1/8" NPT	0.67/31
MMA-42QAS		MMA-42QAA		1/4" NPT	1/4" NPT	1/8" NPT	0.89/49
MMA-43WAS		MMA-43WAA		3/8" NPT	3/8" NPT	1/4" NPT	1.68/93
MMA-44ZAS		MMA-44ZAA		1/2" NPT	1/2" NPT	1/2" NPT	2.79/171

* scfm based on flow @ 100 psig



NEW! MAXIMATIC® 4-WAY VALVES

3-Position Double Valves

Closed Center, Pressure Center & Exhaust Center



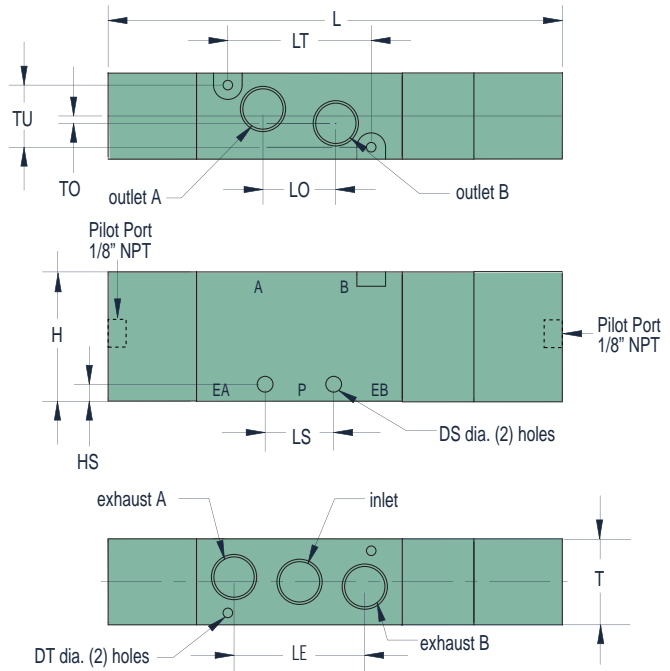
MMA-44ZAAC

Maximatic® 4-way 3-position double air pilot valves with closed center, pressure center or exhaust center spools are available in #10-32 thread to 1/2" NPT port sizes. These air piloted valves have 1/8" NPT external pilot ports.

- Operating Range: 0 to 125 psig
- Pilot Pressure: ≥ 30 on MMA-41 Series; ≥ 20 on all others
- Number of Ports: 5
- Mounting: Body Ported, Manifold Mount

MAXIMUM
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Dim.	MMA-41	MMA-42	MMA-43	MMA-44
DS	0.13 (3.3)	0.17 (4.3)	0.17 (4.3)	0.21 (5.3)
DT	0.13 (3.3)	0.13 (3.3)	0.17 (4.3)	0.17 (4.3)
H	1.07 (27.2)	1.38 (35.1)	1.58 (40.1)	1.97 (50.0)
HS	0.16 (4.1)	0.28 (7.1)	0.26 (6.6)	0.29 (7.4)
L	3.78 (96.0)	4.37 (111.0)	5.13 (130.3)	5.43 (137.9)
LE	1.09 (27.7)	1.42 (36.1)	1.77 (45.0)	2.48 (63.0)
LO	0.63 (16.0)	0.74 (18.8)	0.96 (24.4)	1.42 (36.1)
LS	0.56 (14.2)	0.98 (24.9)	0.95 (24.1)	1.11 (28.2)
LT	1.18 (30.0)	1.40 (35.6)	1.97 (50.00)	2.82 (71.6)
T	0.71 (18.0)	0.86 (21.8)	1.06 (26.9)	1.34 (34.0)
TO	0.11 (2.8)	0.13 (3.3)	0.16 (4.1)	0.19 (4.8)
TU	0.50 (12.7)	0.65 (16.5)	0.80 (20.3)	1.07 (27.2)



Closed Center	Pressure Center	Exhaust Center	Inlet	Outlet	Exhaust	Cv/scfm*
MMA-41NAAC	MMA-41NAAP	MMA-41NAAE	#10-32	#10-32	#10-32	0.50/23
MMA-41PAAC	MMA-41PAAP	MMA-41PAAE	1/8" NPT	1/8" NPT	1/8" NPT	0.50/23
MMA-42QAAC	MMA-42QAAP	MMA-42QAEE	1/4" NPT	1/4" NPT	1/8" NPT	0.89/49
MMA-43WAAC	MMA-43WAAP	MMA-43WAAE	3/8" NPT	3/8" NPT	1/4" NPT	1.00/72
MMA-44ZAAC	MMA-44ZAAP	MMA-44ZAAE	1/2" NPT	1/2" NPT	1/2" NPT	1.68/93

* scfm based on flow @ 100 psig



Parallel Bar Manifolds



Valve Series	2-Station	4-Station	6-Station	8-Station	16-Station	"T" Mtg. Thread
MMA-31/41	2.24 (56.9)	3.73 (94.7)	5.25 (133.4)	6.75 (171.5)	12.69 (322.3)	M4
MMA-32/42	2.71 (68.8)	4.50 (114.3)	6.33 (160.8)	8.13 (206.5)	15.38 (390.7)	M4
MMA-33/43	3.22 (81.8)	5.42 (137.7)	7.62 (193.5)	9.82 (249.4)	18.63 (473.2)	M5
MMA-34/44	3.85 (97.8)	6.56 (166.6)	9.38 (238.3)	12.10 (307.3)	23.11 (587.0)	M5

Parallel circuit manifold bars are available for all sizes of MMA 3- and 4-way valves. Manifolds are made in increments of two stations from two to 16, and are supplied with mounting screws and gaskets. Spare kits are also available which include two screws and a gasket. Blank plate supplied with one gasket, two screws and metal plate.

Valve Series	Manifold Inlet/		2-Station	4-Station	6-Station	8-Station	16-Station
	Exhaust	Blank Plate					
3-Way Valve Manifolds							
MMA-31	1/8"	MMM-31-B	MMM-31-02	MMM-31-04	MMM-31-06	MMM-31-08	MMM-31-16
MMA-32	1/4"	MMM-32-B	MMM-32-02	MMM-32-04	MMM-32-06	MMM-32-08	MMM-32-16
MMA-33	3/8"	MMM-33-B	MMM-33-02	MMM-33-04	MMM-33-06	MMM-33-08	MMM-33-16
MMA-34	1/2"	MMM-34-B	MMM-34-02	MMM-34-04	MMM-34-06	MMM-34-08	MMM-34-16

3-Way Spare Mounting Kit Hardware

27041-31	Hardware Kit for MMA-31 Series Valves	27041-33	Hardware Kit for MMA-33 Series Valves
27041-32	Hardware Kit for MMA-32 Series Valves	27041-34	Hardware Kit for MMA-34 Series Valves

Valve Series	Manifold Inlet/		2-Station	4-Station	6-Station	8-Station	16-Station
	Exhaust	Blank Plate					
4-Way Valve Manifolds							
MMA-41	1/4"	MMM-41-B	MMM-41-02	MMM-41-04	MMM-41-06	MMM-41-08	MMM-41-16
MMA-42	1/4"	MMM-42-B	MMM-42-02	MMM-42-04	MMM-42-06	MMM-42-08	MMM-42-16
MMA-43	3/8"	MMM-43-B	MMM-43-02	MMM-43-04	MMM-43-06	MMM-43-08	MMM-43-16
MMA-44	1/2"	MMM-44-B	MMM-44-02	MMM-44-04	MMM-44-06	MMM-44-08	MMM-44-16

4-Way Spare Mounting Kit Hardware

27041-41	Hardware Kit for MMA-41 Series Valves	27041-43	Hardware Kit for MMA-43 Series Valves
27041-42	Hardware Kit for MMA-42 Series Valves 2	27041-44	Hardware Kit for MMA-44 Series Valves

Rebuild Kits.

Convenient rebuild kits are available which contain common maintenance items that may be needed during the life of the valve. Each contains a spool, diamond seal, two pilot seals, two pistons with seals, and spring. Consult factory for 3-position kits.

Part No.

27040-31	3-Way Kit, MMA-31
27040-32	3-Way Kit, MMA-32
27040-33	3-Way Kit, MMA-33
27040-34	3-Way Kit, MMA-34
27040-41	4-Way 2 Pos. Kit, MMA-41
27040-42	4-Way 2 Pos. Kit, MMA-42
27040-43	4-Way 2 Pos. Kit, MMA-43
27040-44	4-Way 2 Pos. Kit, MMA-44