

Medium Pressure Valves

» Pressures to 22,500 psi (1,550 bar)



Ordering Information
Typical catalog number:
21V4M071

Medium pressure valves

Maximator Medium pressure valves with metal to metal seats have a high level of safety and reliability under adverse operating conditions. These valves may be used both with gases and liquids.

Traceability is ensured through extensively documented data (batch number, maximum pressure, material number, type designation). All medium pressure valves include glands and collars.

21 V Valve Series	4M O.D. Tube Size	07 Stem Type	1 Body Pattern	Options
21 V	4M – 1/4"	07 – VEE stem	1 – two-way straight	Extreme temperature option, see information below.
	6M – 3/8"	08 – REGULATING stem*	2 – two-way angle	
	9M – 9/16"	87 – VEE stem with replaceable seat	3 – three-way, two on pressure	
	12M – 3/4"	88 – REGULATING stem with replaceable seat*	4 – three-way, one on pressure	
	16M – 1"		5 – three-way, two-stem manifold	

Options for Medium pressure valves

Special Designs for Extreme Temperatures

Standard valves are supplied with Teflon / Carbon packing and may be operated to 450°F (230°C). High temperature packing and / or extended stuffing box are available for service from -423°F to 1200°F (-252°C to 650°C) by adding the following suffixes to catalog order number.

- **TG** – standard valve with teflon glass packing to 600°F (315°C).
- **GY** – standard valve with graphite braided yarn packing to 800°F (425°C).
- **HT** – extended stuffing box valve with graphite braided yarn packing to 1200°F (650°C).
- **B** – standard valve with cryogenic trim materials and Teflon packing to -100°F (-73°C).
- **LT** – extended stuffing box valve with teflon packing and cryogenic trim materials to -423°F (-252°C).

O.D. Size in. (mm)	Connec- tion Type	Orifice Size in. (mm)	Rated Cv**	Pressure Rating @ R.T. psi (bar)***
1/4 (6.35)	4MF	0.106 (2.7)	0.31	22,500 (1,550)
3/8 (9.53)	6MF	0.201 (5.1)	0.75	22,500 (1,550)
9/16 (14.29)	9MF	0.307 (7.8)	1.30	22,500 (1,550)
3/4 (19.05)	12MF	0.438 (11.1)	2.50	22,500 (1,550)
1 (25.4)	16MF	0.562 (14.3)	4.40	22,500 (1,550)

Consult your MAXIMATOR representative for **repair kits** and valve bodies. Refer to the Tools and Installation section for proper maintenance procedures.

* tapered tip for regulating and shut-off

** Cv values shown are for 2-way straight pattern vee stem valves. For 2-way angle patterns, increase the Cv value by 50%. For Flow coefficient reference curves, please refer to chapter Technical Informations.

*** See page 2 in the Technical Section for Pressure/Temperature Rating Chart.

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Products for Sour Gas Applications
Pipe Valves
to 19,200 psi (1,050 bar)

Adapters and Couplings
Medium Pressure
to 22,500 psi (1,550 bar)

Accessories
High Pressure
to 65,000 psi (4,500 bar)

Tools
Ultra High Pressure
to 152,000 psi (10,500 bar)

Technical Information
Valve Actuators

Customized Solutions
Ball Valves
to 21,000 psi (1,500 bar)

Pipe Valves
Gas Applications
to 15,200 psi (1,050 bar)

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Medium Pressure
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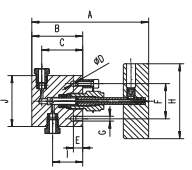
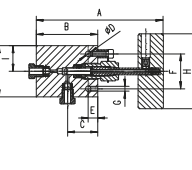
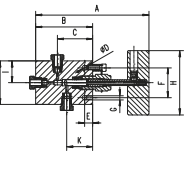
Tools

Valve Actuators

Technical
Information

Ball Valves
to 21,000 psi (1,500 bar)

Customized
Solutions

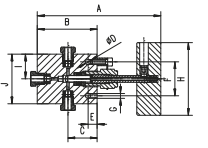
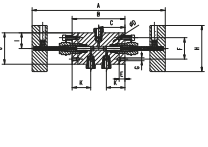
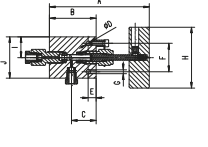
Valve Pattern	Catalog Number	Stem Type	O.D. Tube in.	Orifice in. (mm)	Dimensions in. (mm)										Valve Panel Hole	Block Thickness
					A	B	C	D	E	F	H	I	J	K		
2-Way Straight																
	21V4M071	Vee	1/4	0.106	4.61	2.01	1.62	0.22	0.37	1.24	2.95	1.19	2.01		0.75	0.79
	21V4M081	Reg		(2.7)	(117)	(51)	(41.1)	(5.6)	(9.5)	(31.5)	(75)	(30.2)	(51)		(19.1)	(20.1)
	21V6M071	Vee	3/8	0.201	4.61	2.01	1.62	0.22	0.37	1.24	2.95	1.19	2.01		0.75	0.79
	21V6M081	Reg		(5.1)	(117)	(51)	(41.1)	(5.6)	(9.5)	(31.5)	(75)	(30.2)	(51)		(19.1)	(20.1)
	21V9M071	Vee	9/16	0.307	5.87	2.88	2.38	0.37	0.45	1.38	3.94	1.75	2.50		1.00	1.02
	21V9M081	Reg		(7.8)	(149)	(73.2)	(60.5)	(9.5)	(11.5)	(35)	(100)	(44.5)	(63.5)		(25.4)	(25.9)
	21V12M071	Vee	3/4	0.438	7.05	3.74	3.00	0.43	0.63	1.76	10.31	2.25	3.00		1.25	1.38
	21V12M081	Reg		(11.1)	(179)	(95)	(76)	(11)	(16)	(44.7)	(262)	(57.2)	(76)		(31.8)	(35)
	21V16M071	Vee	1	0.562	8.98	4.65	3.75	0.53	1.13	2.50	10.31	2.81	4.13		1.62	1.77
	21V16M081	Reg		(14.3)	(228)	(118)	(95.3)	(13.5)	(28.7)	(63.5)	(262)	(71.4)	(105)		(41.1)	(45)
2-Way Angle																
	21V4M072	Vee	1/4	0.106	5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V4M082	Reg		(2.7)	(127)	(61.7)	(30.2)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)		(19.1)	(20.1)
	21V6M072	Vee	3/8	0.201	5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V6M082	Reg		(5.1)	(127)	(61.7)	(30.2)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)		(19.1)	(20.1)
	21V9M072	Vee	9/16	0.307	6.36	3.38	1.75	0.37	0.45	1.38	3.94	1.25	2.50		1.00	1.02
	21V9M082	Reg		(7.8)	(161.5)	(85.9)	(44.5)	(9.5)	(11.5)	(35)	(100)	(31.8)	(63.5)		(25.4)	(25.9)
	21V12M072	Vee	3/4	0.438	7.56	4.25	2.25	0.43	0.63	1.76	10.31	1.50	3.00		1.25	1.38
	21V12M082	Reg		(11.1)	(192)	(108)	(57.2)	(11)	(16)	(44.7)	(262)	(38)	(76)		(31.8)	(35)
	21V16M072	Vee	1	0.562	9.45	5.12	2.81	0.53	1.13	2.50	10.31	2.07	4.13		1.62	1.77
	21V16M082	Reg		(14.3)	(240)	(130)	(71.4)	(13.5)	(28.7)	(63.5)	(262)	(52.5)	(105)		(41.1)	(45)
3-Way / 2 on Pressure																
	21V4M073	Vee	1/4	0.106	5.20	2.62	1.62	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V4M083	Reg		(2.7)	(132)	(66.5)	(41.1)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)	(30.2)	(19.1)	(20.1)
	21V6M073	Vee	3/8	0.201	5.20	2.62	1.62	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V6M083	Reg		(5.1)	(132)	(66.5)	(41.1)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)	(30.2)	(19.1)	(20.1)
	21V9M073	Vee	9/16	0.307	6.60	3.62	2.38	0.37	0.45	1.38	3.94	1.25	2.50	1.75	1.00	1.02
	21V9M083	Reg		(7.8)	(167.6)	(92)	(60.5)	(9.5)	(11.5)	(35)	(100)	(31.8)	(63.5)	(44.5)	(25.4)	(25.9)
	21V12M073	Vee	3/4	0.438	7.97	4.63	3.00	0.43	0.63	1.76	10.31	1.50	3.00	2.25	1.25	1.38
	21V12M083	Reg		(11.1)	(201)	(117.5)	(76)	(11)	(16)	(44.7)	(262)	(38)	(76)	(57.2)	(31.8)	(35)
	21V16M073	Vee	1	0.562	10.20	5.87	3.75	0.53	1.13	2.50	10.31	2.07	4.13	2.81	1.62	1.77
	21V16M083	Reg		(14.3)	(259)	(149)	(95.3)	(13.5)	(28.7)	(63.5)	(262)	(52.5)	(105)	(71.4)	(41.1)	(45)

G - Panel mounting screw thread size 10-24 UNC (screw included). All dimensions are for reference only and are subject to change.

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Valve Pattern	Catalog Number	Stem Type	O.D. Tube in.	Orifice in. (mm)	Dimensions in. (mm)										Valve Panel Hole	Block Thickness
					A	B	C	D	E	F	H	I	J	K		
3-Way / 1 on Pressure																
	21V4M074	Vee	1/4	0.106	5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V4M084	Reg		(2.7)	(127)	(61.7)	(30.2)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)		(19.1)	(20.1)
	21V6M074	Vee	3/8	0.201	5.00	2.43	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V6M084	Reg		(5.1)	(127)	(61.7)	(30.2)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)		(19.1)	(20.1)
	21V9M074	Vee	9/16	0.307	6.34	3.38	1.75	0.37	0.45	1.38	3.94	1.25	2.50		1.00	1.02
	21V9M084	Reg		(7.8)	(161)	(85.9)	(44.5)	(9.5)	(11.5)	(35)	(100)	(31.8)	(63.5)		(25.4)	(25.9)
	21V12M074	Vee	3/4	0.438	7.56	4.25	2.25	0.43	0.63	1.76	10.31	1.50	3.00		1.25	1.38
	21V12M084	Reg		(11.1)	(192)	(108)	(57.2)	(11)	(16)	(44.7)	(262)	(38)	(76)		(31.8)	(35)
	21V16M074	Vee	1	0.562	9.53	5.20	2.81	0.53	1.13	2.50	10.31	2.07	4.13		1.62	1.77
	21V16M084	Reg		(14.3)	(242)	(132)	(71.4)	(13.5)	(28.7)	(63.5)	(262)	(52.5)	(105)		(41.1)	(45)
3-Way / 2-Stem Manifold																
	21V4M075	Vee	1/4	0.106	8.54	3.39	1.19	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V4M085	Reg		(2.7)	(217)	(86)	(43)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)	(30.2)	(19.1)	(20.1)
	21V6M075	Vee	3/8	0.201	8.54	3.39	1.19	0.22	0.37	1.24	2.95	1.00	2.01	1.19	0.75	0.79
	21V6M085	Reg		(5.1)	(217)	(86)	(43)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)	(30.2)	(19.1)	(20.1)
	21V9M075	Vee	9/16	0.307	11.1	5.12	2.56	0.37	0.45	1.38	3.94	1.25	2.50	1.75	1.00	1.02
	21V9M085	Reg		(7.8)	(282)	(130)	(65)	(9.5)	(11.5)	(35)	(100)	(31.8)	(63.5)	(44.5)	(25.4)	(25.9)
	21V12M075	Vee	3/4	0.438	13.07	6.50	3.25	0.43	0.63	1.76	10.31	1.50	3.00	2.25	1.25	1.38
	21V12M085	Reg		(11.1)	(332)	(165)	(82.5)	(11)	(16)	(44.7)	(262)	(38)	(76)	(57.2)	(31.8)	(35)
	21V16M075	Vee	1	0.562	16.18	7.52	3.76	0.53	1.13	2.50	10.31	2.07	4.13	2.81	1.62	1.77
	21V16M085	Reg		(14.3)	(411)	(191)	(95.5)	(13.5)	(28.7)	(63.5)	(262)	(52.5)	(105)	(71.4)	(41.1)	(45)
2-Way Angle / Replaceable Seat																
	21V4M872	Vee	1/4	0.106	4.84	2.25	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V4M882	Reg		(2.7)	(123)	(57.2)	(30.2)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)		(19.1)	(20.1)
	21V6M872	Vee	3/8	0.201	4.84	2.25	1.19	0.22	0.37	1.24	2.95	1.00	2.01		0.75	0.79
	21V6M882	Reg		(5.1)	(123)	(57.2)	(30.2)	(5.6)	(9.5)	(31.5)	(75)	(25.4)	(51)		(19.1)	(20.1)
	21V9M872	Vee	9/16	0.307	6.65	3.21	1.75	0.37	0.45	1.38	3.94	1.25	2.50		1.00	1.02
	21V9M882	Reg		(7.8)	(169)	(81.5)	(44.5)	(9.5)	(11.5)	(35)	(100)	(31.8)	(63.5)		(25.4)	(25.9)
	21V12M872	Vee	3/4	0.438	7.56	4.25	2.25	0.43	0.63	1.76	10.31	1.50	3.00		1.25	1.38
	21V12M882	Reg		(11.1)	(192)	(108)	(57.2)	(11)	(16)	(44.7)	(262)	(38)	(76)		(31.8)	(35)
	21V16M872	Vee	1	0.562	9.57	5.25	2.81	0.53	1.13	2.50	10.31	2.07	4.13		1.62	1.77
	21V16M882	Reg		(14.3)	(243)	(133.3)	(71.4)	(13.5)	(28.7)	(63.5)	(262)	(52.5)	(105)		(41.1)	(45)

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