



## Specialty Products

**MAXIMATOR** has been designing and manufacturing specialty products to serve the high pressure market for over thirty years and has a worldwide reputation for quality and reliability.

### Specialty Products features:

- ▶ Relief Valves rated up to 25,000 psig designed for gas and liquid service.
- ▶ MicroMetering Valves come standard with coned and threaded connections rated to 65,000 psig.
- ▶ Cryogenic Valves are designed for low temperature service down to -423°F.
- ▶ High Temperature Valves are designed for temperatures up to 1200°F.
- ▶ Block and Bleed Valves are designed for blocking, bleeding and calibrating of pressure gauges and transmitters up to 22,500 psi.
- ▶ Manifold Blocks are very compact and feature six connections.

**MAXPRO** offers a diverse line of high pressure equipment for all your extreme applications. Not all options can be applied to the standard valve series, see specific product pages for ordering options.

**Note:** When selecting multiple items, the pressure rating would be that of the lowest rated component.

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 MT R11 10/2020



# Relief Valves

Pressures to 66,000 psi



**Maxpro** proportional relief valves are designed to protect systems and components against over-pressure for both gas and liquid applications. The unique poppet design allows for chatter free pressure release and excellent deadband pressure control. The soft seat design provides bubble tight shut-off and increased cycle life. These proportional relief valves are designed to open gradually as the pressure increases. They are not recommended for full capacity at a given pressure, and are not certified to ASME code requirements.

### Relief Valve Features:

- Gas or Liquid Service\*
- 316L Stainless Steel Body
- Nylon Seats
- Seal materials are PTFE/EPDM
- Panel mounting
- Externally adjustable
- Safety weep hole for seal area leak detection
- Temperature Range - 0 °F to 200 °F
- Factory pressure setting available
- Preset and locked cracking pressure “-L”

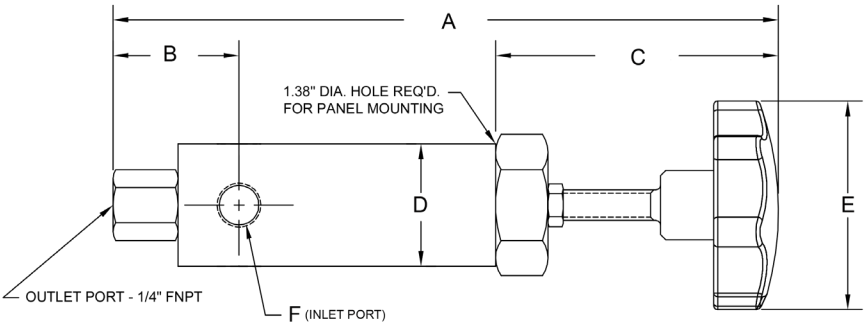


### Repair Kits

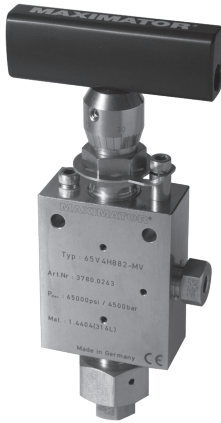
Consult your **MAXPRO** representative for repair kits and valve bodies. Refer to the Tools and Installation section for proper maintenance procedures.

Catalog Number	Connection Size		Orifice (in.)	Service	Pressure Rating (psi) @ R.T.		Valve Panel Hole (IN.)	Body Diameter (IN.)
	Inlet	Outlet			Minimum Setting (PSIG)	Maximum Setting (PSIG)		
MT10RV	1/4" FNPT (2)	1/4" FNPT	0.070	Liquid/Gas	1,000	10,000	1.38	1.50
MT25RV	1/4" H.P.	1/4" FNPT	0.070	Liquid/Gas	2,500	25,000	1.625	2.00
MT66RV	1/4" U.H.P.	1/4" FNPT	0.070	Liquid/Gas*	10,000	66,000	1.625	2.00

All dimensions are for reference only and are subject to change.  
When selecting multiple items, the pressure rating would be that of the lowest rated components.  
\* Not bubble tight on gas service.



Dimension	MT10RV	MT25RV	MT66RV
A	8.13"	9.94"	9.94"
B	1.56"	2.13"	2.13"
C	3.50"	1.68"	1.68"
D	1.50"	2.00"	2.00"
E	2.50"	.56"	.56"
F	1/4" FNPT	1/4" H.P.	1/4" U.H.P.



**MAXIMATOR** MicroMetering valves are designed for metering small flow rates with precise repeatable control for both gas and liquids. The metering barrel allows for fine adjustments and consistent settings. These valves are for metering control only, and are not recommended to be used as complete shutoff valves. Traceability is ensured through extensively documented data (batch number, maximum pressure, material number, type designation). All MicroMetering valves come with female coned and threaded connections.

## Ordering Information

Typical catalog number: **65V4H882-MV**

65V	4H	88	2	-MV
Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Options
65V	4H - 1/4"	88 - Metering Stem	2 - two-way angle	MV-Micro Metering

## Temperature Ranges

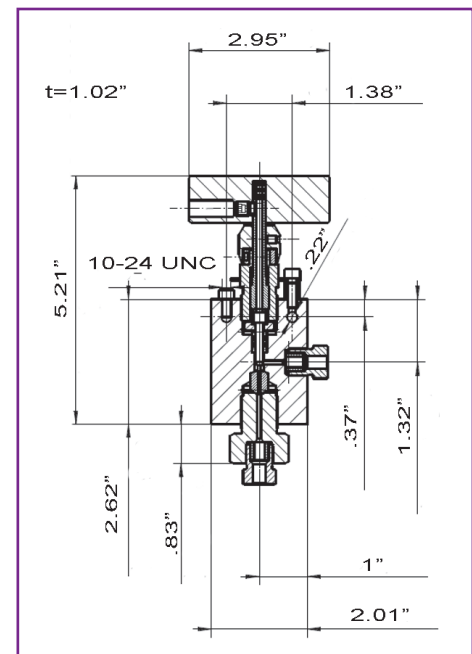
Standard valves are supplied with Teflon/Carbon packing and may be operated to 450°F. Consult **MAXPRO** for higher temperature packing ratings.

## Repair Kits

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

O.D. Size (in.)	Connection Type	Orifice Size (in.)	Rated Cv	Press/Temp (psi@RT)**
1/4	1/4 HF	0.062	0.025	65,000

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



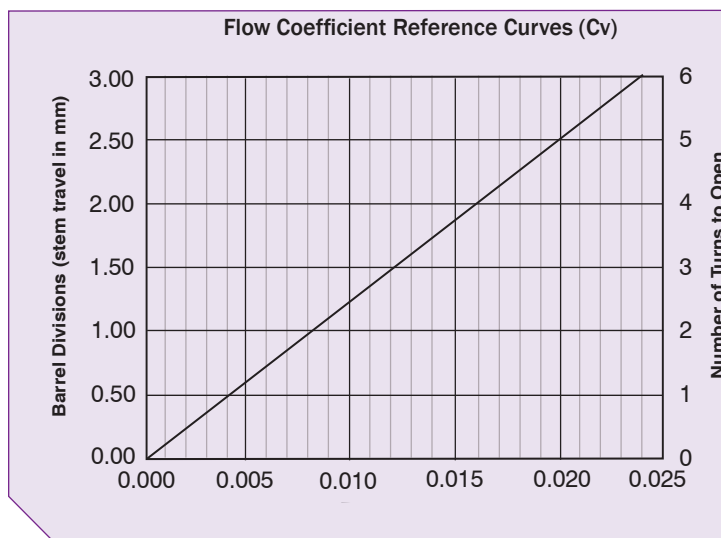
**65V4H882-MV**

t = Valve body thickness

Panel mounting screw size 10-24 UNC.

MicroMetering Valves are not recommended to be used as shutoff valves, operating these valves below the "0" barrel position may result in permanent stem damage.

All dimensions are for reference only and are subject to change.



One handle revolution = 0.020" (.50 mm) of stem travel.

# Cryogenic Valves

Temperatures to -423°F



**MAXIMATOR** Low Temperature 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.

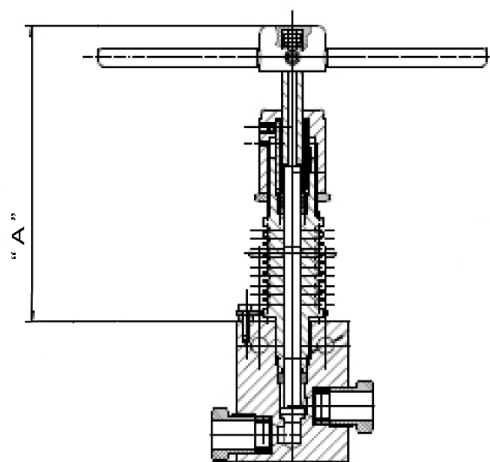
Traceability is ensured through extensively documented data (batch number, maximum pressure, material number, type designation). All valves include glands and collars.

## Ordering Information

Typical catalog number: **21V4M071-LT**

21V	4M	07	1	-LT
Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Option
21V	4M - 1/4" 6M - 3/8" 9M - 9/16" 12M - 3/4" 16M - 1"	07 - VEE stem 08 - REGULATING stem (tapered tip for regulating and shutoff) 87 - VEE stem with replaceable seat 88 - REGULATING stem with replaceable seat	1 - two-way straight 2 - two-way angle 3 - three-way, two on pressure 4 - three-way, one on pressure 5 - three-way, two-stem manifold	LT - Low Temperature option with extended stuffing box
36V or 65V	4H - 1/4" 6H - 3/8" 9H - 9/16"			

Ordering numbers for all valves can be found in our catalog or on our website, [www.maxprotech.com](http://www.maxprotech.com). Add the suffix -LT to the part number to choose the valves created to combat harsh, low temperature environments.



**21V9M071-LT**

See Page 5 (HT Valves) for measurements on all sizes of this valve series.

## Temperature Ranges

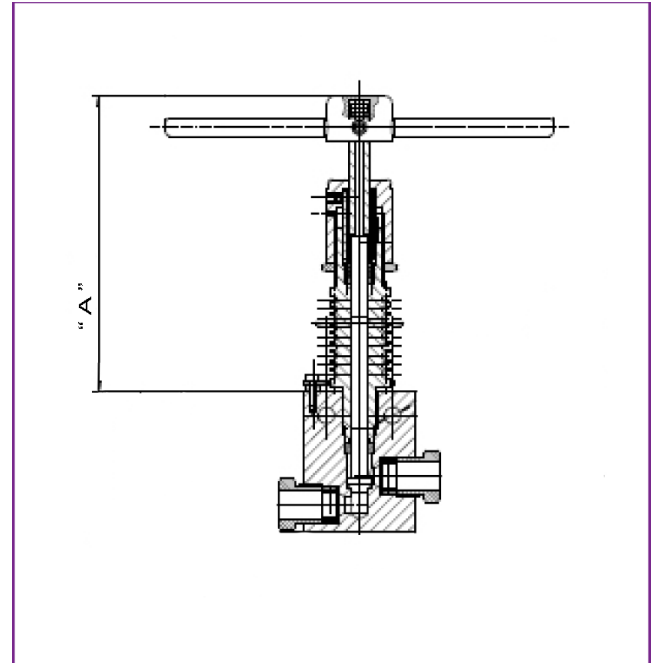
The Low Temperature Valves contain an extended stuffing box with Teflon packing and cryogenic trim material for line temperatures to -423° F. The extended packing area is raised away from the pressure stream and is limited to -100° F. The Low Temperature Valves are recommended for vertical installation only.

## Repair Kits

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



**MAXIMATOR** High Temperature Valves are designed for service up to 1200 °F for both gas and liquids\*. This unique design extends the packing and stem thread area away from the hot zone and the additional heat sink grooves on the extended housing provides excellent additional temperature protection. Add “-HT” suffix to the standard valve catalog number will include the extended stuffing box with Graphite packing.



## Ordering Information

Typical catalog number: **21V4M071-HT**

21V	4M	07	1	-HT
Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Option
21V	4M – 1/4" 6M – 3/8" 9M – 9/16" 12M – 3/4" 16M – 1"	07 – VEE stem 08 – REGULATING stem (tapered tip for regulating and shutoff) 87 – VEE stem with replaceable seat 88 – REGULATING stem with replaceable seat	1 – two-way straight 2 – two-way angle 3 – three-way, two on pressure 4 – three-way, one on pressure 5 – three-way, two-stem manifold	HT - High Temperature option with extended stuffing box
36V or 65V	4H – 1/4" 6H – 3/8" 9H – 9/16"			

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

\*These HT Valves contain graphite packing and are not recommended for hydrogen or helium service.

Maximum allowable stuffing box temperature is 800 °F.

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

All dimensions are for reference only and are subject to change.

Valve Series	Connection Type	Dimension "A"
21V	4M	6.00"
	6M	6.00"
	9M	6.00"
	12M	7.90"
	16M	9.60"
36V or 65V	4H	6.30"
	6H	6.30"
	9H	6.30"

# Block and Bleed Valves

## Pressures to 22,500 psi

### Block and Bleed Valves

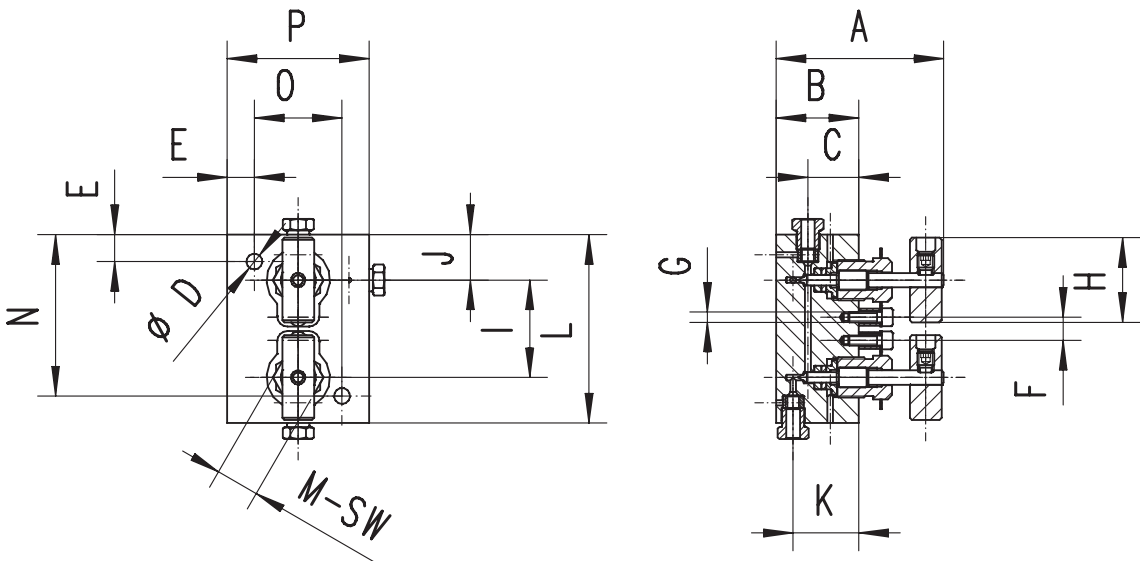
**MAXIMATOR** series BB block and bleed valves with metal to metal seats have a high level of safety and reliability under adverse operating conditions. Block and bleed valves are two stem manifold valves designed for blocking, bleeding and calibrating of pressure gauges and transmitters up to 22,500 psi @ R.T.

Due to the mini valve packing and stem design MAXIMATOR block and bleed valves are very compact and easy to use. In addition, manifold style valves reduce the number of fittings and space required for installation.



Catalog Number	Stem Type	OD Tube in.	Orifice (in.)	Dimensions (in.)															
				A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
21BBV4M	Vee	1/4	0.11	3.11	1.54	0.94	0.3	0.5	0.43	1.57	1.81	0.85	1.22	3.5	0.81	3.0	1.63	2.64	2.64
21BBV6M	Vee	3/8																	

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







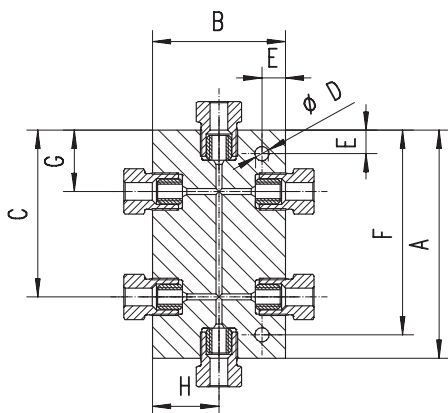
## Manifold Blocks

**MAXPRO** Custom Manifold Blocks can be provided in any configuration to suit customer needs, with fast delivery. Please contact Maxpro for a quotation.

**MAXIMATOR** Manifold Block Series allows reducing parts and potential leakages in high pressure piping systems.

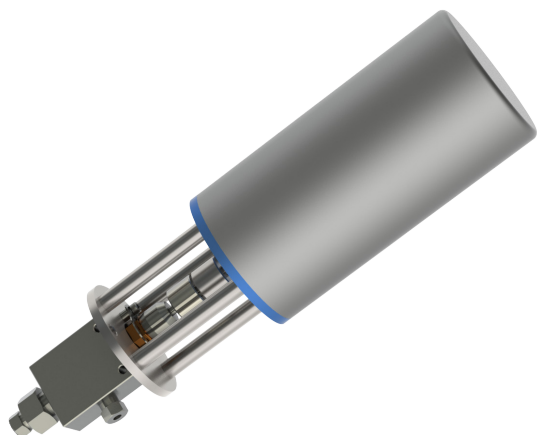
Catalog Number	Pressure (psi) (psi @ R.T.)**	OD Tube in.	Orifice (in.)	Dimensions (in.)							Block Thickness
				A	B	C	D	E	F	G	
CUSTOMIZED MANIFOLD BLOCKS IN ANY CONFIGURATION FROM 10,000-152,000 PSI - CONTACT MAXPRO											
21MB64M	22,500	1/4	0.11	3.39	1.54	2.6	0.22	0.28	3.11	0.77	0.63
21MB66M	22,500	3/8	0.2	3.39	2.01	2.38	0.26	0.37	3.01	1.0	0.79
21MB69M	22,500	9/16	0.307	5.12	2.5	3.86	0.33	0.41	4.7	1.25	1.02
21MB612M	22,500	3/4	0.438	6.5	2.99	5.0	0.35	0.49	6.0	1.5	1.38
21MB616M	22,500	1	0.562	7.25	4.13	5.45	0.53	0.69	6.83	2.07	1.77
65MB64H	65,000	1/4	0.094	3.44	2.01	2.52	0.22	0.35	3.09	1.0	1.02
65MB66H	65,000	3/8	0.125	3.76	2.01	2.66	0.26	0.35	3.41	1.0	1.02
65MB69H	65,000	9/16	0.19	5.12	2.64	3.74	0.33	0.37	4.74	1.32	1.54
152MB65U	152,000	5/16	0.094	4.72	3.03	3.21	0.33	0.59	4.13	1.52	1.26

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



# Electric Flow Control Valve

## Pressures to 65,000 psi



### Electric Flow Control Valve

**MAXPRO'S** Electric Flow Control Valves are designed for metering small flow rates with precise repeatable control for both gas and liquids using an electric control signal. The internal microprocessor controls motor voltage and current to insure optimal stem location and flow repeatability. **These valves are for metering control only, and are not recommended to be used as complete shutoff valves.** All Flow Control valves come with female coned and threaded connections.

O.D. Tube Size	Connection Type	Orifice Size (in.)	Rated Cv	Press/Temp (psi@RT)**
1/4"	1/4" HF	0.062	0.025	65,000

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

### Ordering Information

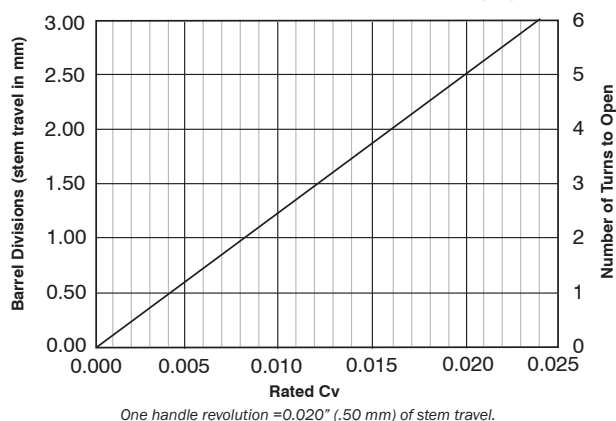
Typical catalog number: **65V4H882-MVCV-10**

65V	4H	88	2	-MV	CV-10
Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Option	Control input
65V	4H - 1/4"	88 - REGULATING stem with replaceable seat	2 - two-way angle	MV - Micro Metering	CV-10 = 0-10 VDC CV-20 = 4-20 mA

### Actuator Features:

- Power Requirement: 24 VDC @ 50 Watts
- Control Input: 0-10 VDC or 4-20 mA
- Output Torque: 75 in lbs
- Actuator Rating: IP65 Weatherproof (NEMA 4X)
- Actuator Housing & Frame: Anodized Aluminum Housing
- Operating Temperature: -22°F to 175°F
- Cable Length: 2 Feet

Flow Coefficient Reference Curve (Cv)



### Temperature Ranges

Standard valves are supplied with Teflon/Carbon packing and may be operated to 450°F. Consult MAXPRO for higher temperature packing ratings.

Catalog Number	Control Input	Number of Rotations	Valve Rotations/Minute	Dimensions (in.)							Block Thickness
				A	B	C	D	E	F	G	
65V4H882-MVCV-10	0-10 VDC	6	14	4.10	8.25	3.50	1.31	2.62	2.00	1.00	1.02
65V4H882-MVCV-20	4-20mA	6	14	4.10	8.25	3.50	1.31	2.62	2.00	1.00	1.02

Micrometering Valves are not recommended to be used as shutoff valves, operating these valves below the "0" barrel position may result in permanent stem damage.

All dimensions are for reference only and are subject to change.

