M-DVP High Flow Proportional Control Valves

Clippard's newest M-DVP series proportional solenoid valves are precision-built 2/2 control valves, utilizing a unique, patented valving principle. This powerful series was designed as the next generation of the well-known and trusted original M-EV line of Clippard "Mouse" valves. With a life of over a billion cycles, a solid, compact design, and extremely high flow rates, these valves are suitable for many applications across numerous industries.

The M-DVP series valve provides air or gas flow control, and varies the output flow based on the current input to the solenoid. The consistent gain (see chart) of this valve provides a high degree of control.

Controllability and overall value are the main features of the M-DVP series. The valve may be controlled using DC current, open or closed-loop control, and even PWM (Pulse Width Modulation) to cover a large range of applications

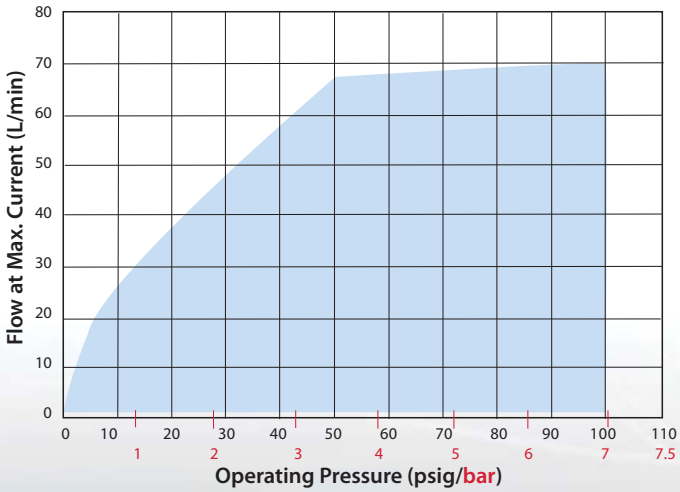
SPECIFICATIONS

Valve Type	2/2 Proportional
Medium	Air & Compatible Gases (40 micron filter)
Pressure Range	Vac* to 7 bar
Max. Hysteresis	10% of full current
Max. Flow Tolerance	+10% / -0%
Power Consumption	1.9 watts at 22°C, 2.5 watts max
Temperature Range	0 to 50°C
Voltage	10 or 20 VDC
Mounting	Manifold, M5x0.8
Seal Material	FKM standard, Nitrile, EPDM, and Silicone optional
Wetted Materials	Stainless Steel, PPS
Certifications	CE, RoHS, REACH

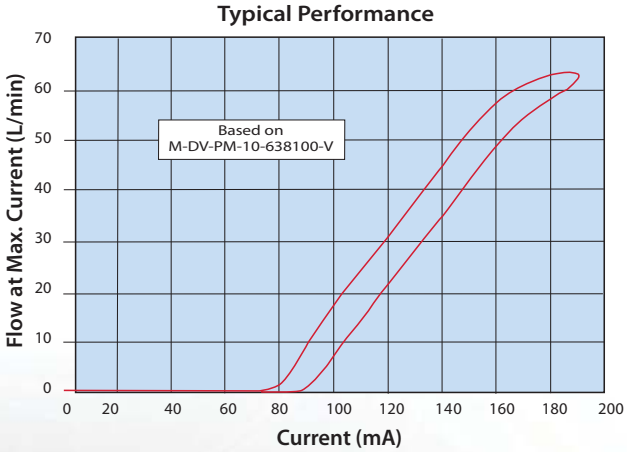
** Vacuum applications are reverse flow*

- **Industry standard for leak-free operation**
- **Over 1,000,000,000 cycles**
- **Extremely low hysteresis**
- **Fast response time**
- **Large flows in small, sleek design**
- **Low heat rise/low power**
- **Robust stainless steel "Spider" flat armature spring**

M-DVP Flow Capabilities



Typical Performance



** Call for custom flow and pressure configurations*

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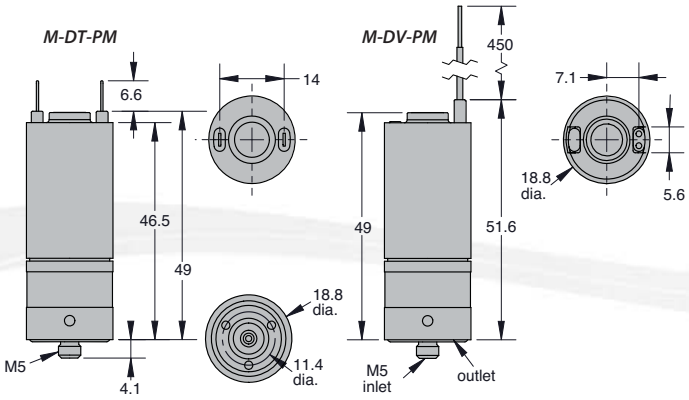
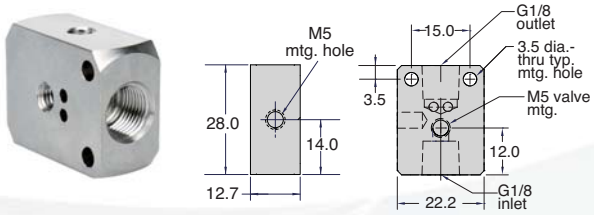


SINGLE-STATION MANIFOLD

Construction ENP brass standard. Other materials available.



Part No.	
M-15490-5	Single-Station Manifold

MULTI-STATION MANIFOLDS

Construction Black anodized aluminum
Ports G1/8

Custom manifolds available. Consult factory.

Part No.	
M-15781-2	2-Station Manifold
M-15781-4	4-Station Manifold

ORDERING INFORMATION

Example Part No.

M - D V - P M -	1 0 -	3 0 0	0 4 0	- V
Connection Style	**Voltage**	**Flow (L/min)**	**Operating Pressure (psig)**	**Seals**
M-DT-PM Spade Terminals	10 10-Volt	Increments of 1 from 010 to 678 (1.0 to 67.8)	Increments of 1 from 005 to 100	V FKM (std.) E EPDM (blank) Nitrile S Silicone

Consult Clippard for availability of non-standard voltages and other options

Although voltage is an important issue, the **current** is somewhat more important. It is crucial to specify and use a calibrated valve that matches your application. Be sure to use a valve set to your operating pressure to assure you have an overall good performing valve for your exact requirements.

Proportional flow is achieved by varying the current input to the valve.

Nominal Voltage Range at 22°C	Input Current Range	Coil Resistance at 22°C	Max. Voltage Required
0 to 10 VDC	0 to 0.190 amps	52.6 ohms	13 VDC
0 to 20 VDC	0 to 0.095 amps	210.5 ohms	26 VDC

Pressure & Flow

In selecting your valve, reference the M-DVP Flow Capabilities Chart on front and list your Nominal Operating Pressure in psig in a 3-digit format (065 = 65 psig). Next specify your desired Max. Flow Rate for your pressure (500 = 50.0 L/min). Accurately specify your Nominal Operating Pressure and Flow to assure the best performance and resolution for your application.

For Nominal Operating Pressure under 5 psig (340 mbar), use a 005 designator for Pressure. For Vacuum applications use the positive pressure equivalent and reverse the ports.

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