

# Modulating Control Valves



Valcor Engineering Corporation

## DESCRIPTION

A Modulating Control Valve (MCV) or Proportional Control Valve (PCV) is often used to replace a traditional pulse-width-modulated solenoid valve for flow control. A MCV can be used in fully open or closed position, but its real value in a fluid control system is that it can be modulated anywhere in between. With a closed-loop feedback control scheme, this allows for very accurate and precise proportional flow control. Unlike typical actuated valves, the MCV is light and compact, with no external moving parts. Further, the system designer can predetermine how the system reacts to power loss. Valcor can design the MCV to fail closed or open, fail in last position, or fail to a specified flow between open and closed. Valcor's proprietary mechanical design enables the valve to achieve the desired failure position without power; no backup power source is required. The compact design minimizes the need for precious space available on air, rotor or space craft. Vibration in the vehicle is not a factor in the performance of the MCV. Available with either rotary or linear actuation to drive any Valcor or third-party valve.

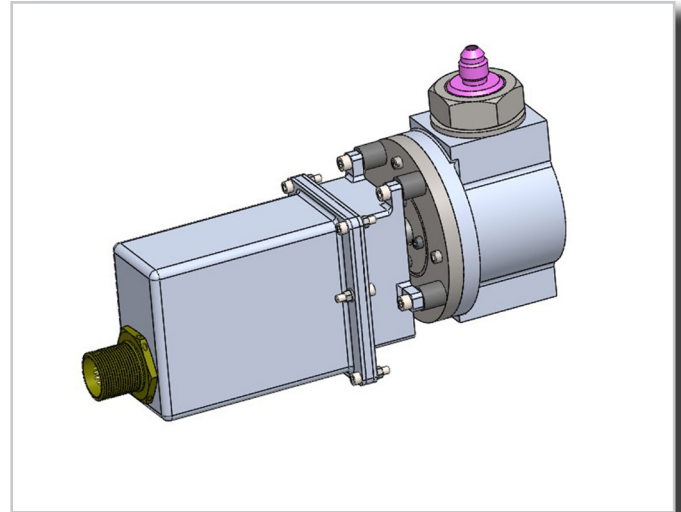
## APPLICATION

The MCV performs proportional flow control in avionics cooling systems, pneumatic and hydraulic systems. Also suitable for controlling aviation fuel flow, especially when used as a coolant, and Polyalphaolefin (PAO) control.

## FEATURES

Our MCVs typically utilize Valcor's catalog of valve designs for the valve component. Valcor can adapt the actuator portion to drive third-party valves as well. The custom designed MCV is tailored to the requirements of your application:

- Broad range of available operating pressures
- Max Flow Rate as required by the application
- Leak rate: Typically 0 cc/sec internal and external at max pressure
- Temperature: -452°F to 300°F max, higher operating and ambient temperatures available
- 12 or 24 VDC standard, other voltages upon request
- Available Electrical Connections: Flying leads or connectors as required
- Wetted Materials: Any materials required for compatibility with fluid media
- Weight: Based on actuator and valve combination
- Available end connections are: NPT, Tube End, or MS standard. Custom end connections available .
- Factory configurable mechanical fail position: Fail Closed, Fail Open, Fail Last Position, or Fail to a specified flow rate
- Fully customizable for your application



Contact us today to see how we can help on your next project.

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