

MCV Series Manual Control Valve

MCV Manual Control Valve Provides Manual Operation of Pneumatic Valve Actuators

Description

The MCV Series Manual Control Valve provides manual operation of pneumatic valve actuators. The MCV is the ideal device for maintenance and manual operation of control valves. The MCV allows the user to override the primary control instrumentation and position the control valve actuator in any position. The unique safety button feature of the MCV prevents unintentional operation. For additional security, optional locking features are available.

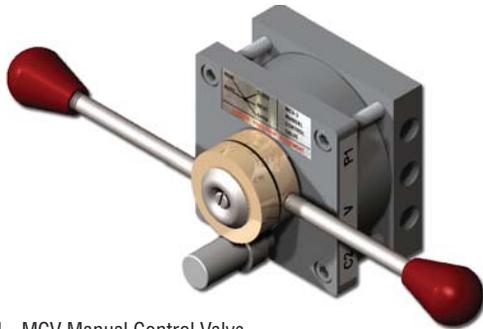


Figure 1 - MCV Manual Control Valve

The MCV provides convenient manual operation of control valve actuators for routine maintenance or emergency situations.

Limit Switches

Limit switch MCV are available for remote indication of the MCV status. The limit switches will notify gas control operators when MCV are in operation.

Available Models

The MCV is available in three different models MCV-3, MCV-3M, and MCV-3H to accommodate power gas pressures up to 500 psig (3448 kPa).

MCV Model Selection			
500 psig		MCV-3H	3448 kPa
250 psig		MCV-3M	1724 kPa
150 psig	MCV-3		1034 kPa
0 psig			0 kPa

Table 1 - Selection

MCV selection is based upon the power gas pressure (psig/kPa) supplied to the actuator.

Features

- Ideal for operation of control valve actuators during routine maintenance or emergency situations
- Facilitates troubleshooting of control instrumentation as well as valve actuators
- Reliable device is maintenance free
- Unique safety button feature prevents accidental operation
- Compatible with almost all pneumatic valve actuators
- Available with handle lock out provision and limit switch

Compatibility

- RPDA Actuators
- RPSR Actuators
- SYDA Actuators
- SYSR Actuators
- LPDA Actuators
- LPSR Actuators
- LD Actuators
- Other manufacturers' pneumatic valve actuators

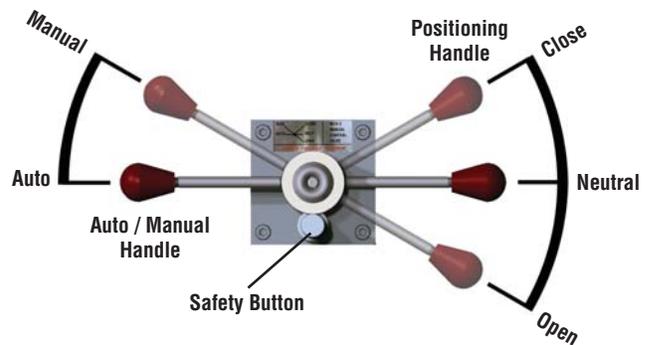


Figure 2 - MCV Handle Operating Positions

The MCV utilizes a two-handle system and a safety button to provide safe operation of pneumatically operated valves. The auto/manual handle is located on the left and cannot be operated without depressing the safety button. Once the auto/manual handle is moved into the manual position, all other control instrumentation are isolated. The user can then utilize the positioning handle located on the right hand to move the pneumatically operated valve to any desired position.

Other Options

Becker offers a variety of overrides for valve actuators. Manual and automatic overrides are available to suit application requirements.

- Electrical overrides (solenoid valves)
- Pressure overrides
- Manual handwheel overrides
- Hydraulic pump override for large valves

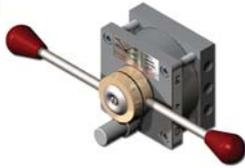


Figure 3.1 - Model MCV-3

MCV-3 is the standard MCV. The MCV-3 is capable of accepting power gas up to 150 psig (1034 kPa). This model is shown with optional locking provision.



Figure 3.2 - Model MCV-3M

MCV-3M is utilized for power gas between 150 psig (1034 kPa) and 250 psig (1724 kPa). The MCV-3M incorporates longer handles necessary for operation with medium pressure power gas pressure.



Figure 3.3 - Model MCV-3H

MCV-3H is utilized for power gas between 250 psig (1724 kPa) and 500 psig (3448 kPa). The MCV-3H incorporates longer handles and a body relief necessary for operation with high power gas pressure.

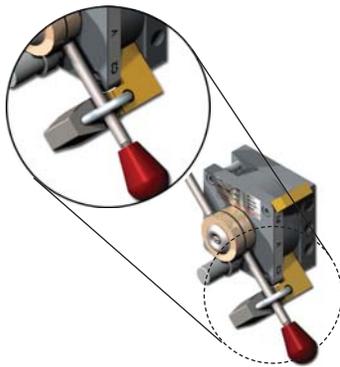


Figure 3.4 - MCV Optional Positioning Handle Locking Provision

All MCV Models are available with an optional positioning handle locking provision. This locking option allows the user to lock the control valve in either the full-open or full-closed position. This feature is useful during maintenance to provide lock out capabilities when it is desired to leave a valve at full-open or full-closed position. The positioning handle locking provision may be combined with the auto/manual locking provision.

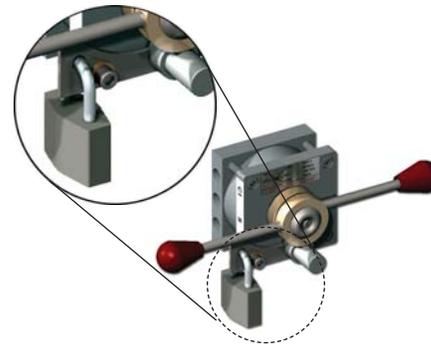


Figure 3.5 - MCV Standard Button Locking Provision

All MCV include the safety button locking provision. This locking option allows the user to lock MCV safety button locking provision to prevent unauthorized usage of the MCV. The safety button locking provision provides an additional degree of security. The safety button locking provision may be combined with the open/close locking provision.

Table 2 - MCV Specifications and Material of Construction

Specifications		Materials of Construction	
Type	Rotary lapped ports with communication channels Manual operation requires pneumatic pressure to operate Five position, six ports with safety button to prevent accidental operation	Body	Carbon steel
Models	MCV-3: $P_{power} \leq 150$ psig (1034 kPa) MCV-3M: 150 psig $\geq P_{power} \leq 250$ psig (1034 kPa $\geq P_{power} \leq 1724$ kPa) MCV-3H: 250 psig $\geq P_{power} \leq 500$ psig (1724 kPa $\geq P_{power} \leq 3448$ kPa)	Body bolts	316 stainless steel
Ports	All body ports 1/4" FNPT Model MCV-3H relief valve outlet Port 1/2" FNPT	Body O-rings	Buna-n
Flow Capacity	Cv= 0.35	Handle knobs	Plastic
		Handles	316 stainless steel
		Internals	Precision lapped carbon steel and cast iron
		Weight	10 lbs. (4.5 kg)
		Mounting	Face mount
		Dimensions	11.625" x 4" x 4.25" (295mm x 102mm x 108mm)
		Coating	Epoxy
		Options	Locking provision Limit switches

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