

### OPERATION

The CVS 4057 3-Way Valves utilize a modular design and incorporate a sliding spool in order to control flow. The CVS 4057 standard sliding spool features a small center dead band position which allows no simultaneous valve port flow.

With the spool in the unlatched (rest position) as shown in the diagrams, Port 2 is open to Port 3 and Port 1 is closed. With the spool in the latched (actuated position), Port 2 is open to Port 1, and Port 3 is closed.

CVS offers three types of 4057 3-way valves:

- CG:** Pressure operated spring return
- CP:** Manual latch or pressure operated with spring return
- CE:** Manual or Pressure Operated Spring Return

## CVS Series 4057 3-Way Valve



CVS CE

CVS CG

CVS CP

### SPECIFICATIONS

Body Material: Precision cast aluminum  
Standard Spool Material: Aluminum  
Standard Seal Material: Buna

Maximum Temperature:  
- 40°C ~ 120°C (- 40°F ~ 250°F)

Flow Coefficient (equivalent to 9/32 dia. Port):  
Cv = 1.2  
Maximum Pressure at Ports 1, 2, or 3: \*125psi  
(860 kPa)

Net Weight: 0.6 ~ 2.0 lbs. (0.3 ~ 0.9 kg)  
150psi (1034 kPa) if a slight increase in operating  
force and pressure are acceptable.

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## FEATURES

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**BALANCED FORCE DESIGN:** Pressure can be applied to any port

**CENTER DEAD SPOT:** Standard

**ARRANGED FOR PANEL OR BRACKET MOUNTING**

**HYDRAULIC FLUID CONTROL**

**ACTUATOR CONTROL**

**PNEUMATIC PANEL SYSTEMS**

**SAFETY CONTROL SYSTEMS**

The CVS Series 4057 3-Way Valve is commonly used in hydraulic or pneumatic control systems. Both manual and pressure operated automatic configurations are available. The maximum allowable pressure and temperature limits are suitable for a wide variety of applications. The 1/4" NPT valve ports allow high flow rates.

All CVS 4057 3-Way Valves are capable for use with the following processes: pneumatic, hydraulic, natural gas, L.P. gases, petroleum-base lubricants, and many other fluids.

Each valve is carefully assembled, tested, and inspected to ensure that high quality standards are met. Valves are made from precision cast and machined aluminum. Standard construction permits valve pressure to 125psi.

The CVS 4057 offers a unique and dynamic characteristic for the oil and gas industry. For instance, the 4057 model CP has a manual reset latch which will automatically drop out upon the introduction of pilot pressure, and allows the return stroke on loss of pilot pressure.

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## INSTALLATION

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All connections on CVS 4057 Valves are made with 1/4" pipe thread fitting. Apply a quality thread sealant to pipe thread connections but do not permit it to enter the valve passage. Teflon thread sealing tape may be used but must be applied so that the threads of the tape do not enter the valve.

### **IMPORTANT**

Avoid over tightening fittings on the valve port bosses as they may be cracked, especially when Teflon thread sealing tape is used.

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## MAINTENANCE

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To check the seal rings, the valve spool can be removed. This is done on most versions by simply removing the end cap and pulling out the spool. Spools on panel mounted valves can be removed from in front of the panel without disconnecting any piping.

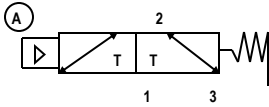
To replace O-rings, remove the spool, take off the old O-rings, thoroughly clean the grooves, and coat the grooves with Dow Corning No. 55 grease. Lightly coat the new rings with grease and install them. Remove excess grease and reinstall the piston.

When these valves are used in safety control systems, it is recommended that the system be checked monthly for proper functioning.

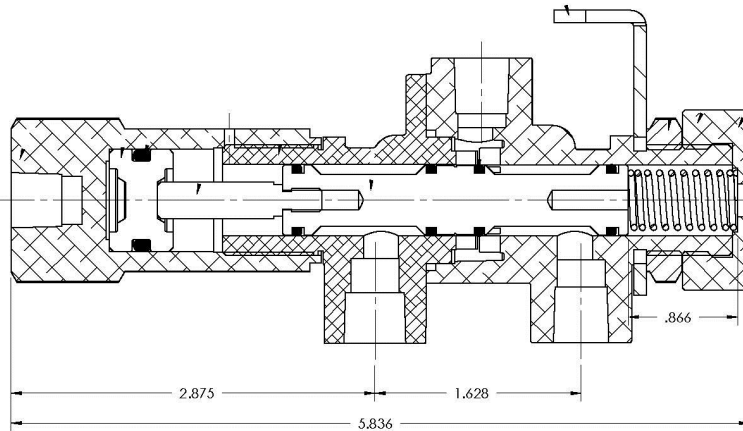
When communicating with CVS sales representative regarding operation of a control, always give the Model No. and Serial No. If ordering service parts always include the description, Part No., and quantity desired.

## VALVE TYPE DESCRIPTION TABLE

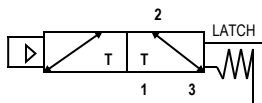
### CVS CG



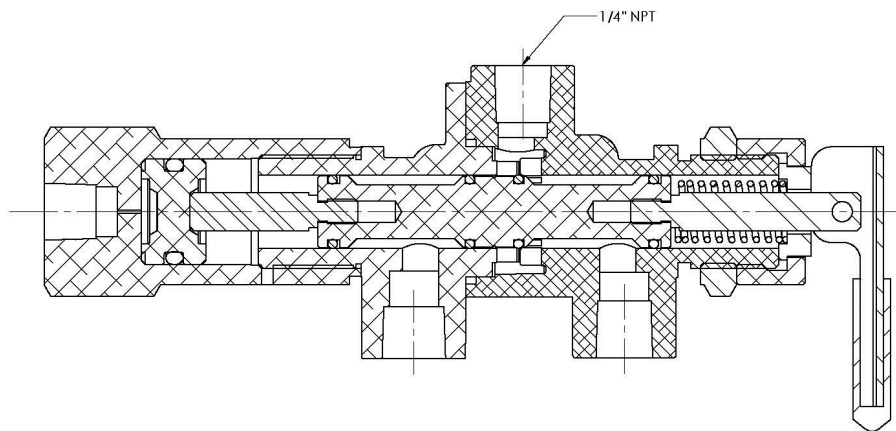
Pressure Operated, Spring Return  
26 psi (1.8bar)



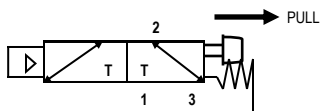
### CVS CP



Pressure Operated Spring Return  
when released, or Manual Latch  
26 psi (1.8bar)



### CVS CE



Pressure Operated Spring Return,  
Or Manual Pull  
26 psi (1.8bar) pressure, or  
16lbs (7.27kg) force required.

