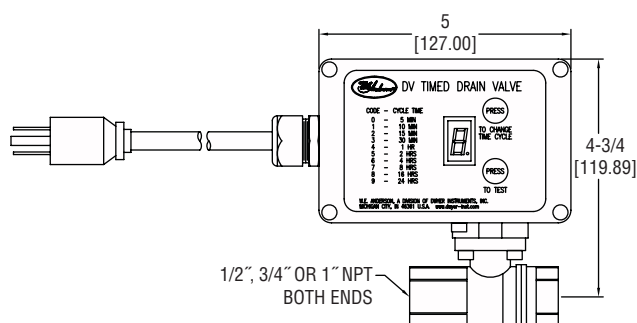




## Series DV Timed Automatic Drain Valve

## Specifications - Installation and Operating Instructions



**Series DV is an automatic drain system** designed to eliminate the need to manually drain water and harmful sediments from your compressed air system, thereby improving the systems performance. The unit can be used on receivers, dryers, tanks, and drop legs for sampling and purging a wide variety of liquids. The Series DV has a heavy-duty motor for operation under adverse conditions and an adjustable timer to meet specific user requirements. By design, the Series DV eliminates major drawbacks of other compressed air draining systems. The valve is brass for corrosion resistance and it is a full port ball valve giving maximum and unobstructed flow with no clogging. A test button allows for the unit to be cycled at any time. It is mountable in any position for easy plumbing, and trouble free operation.

Do not apply electrical power to the unit unless the unit is fully assembled and mounted. Failure to do so could result in personal injury and/or damage to the unit. Disconnect power source and depressurize the system before working on the unit. Failure to do so could result in personal injury. The downstream or discharge side of the ball valve must be directed to a safe area for collecting water, oil and debris. The compressed air system is pressurized during operation. Appropriate precautions are recommended.

**CAUTION:** It is recommended that eye protection be worn while servicing the system. Failure to do so could result in personal injury.

**WARNING:** The motorized drive unit case is not capable of supporting any loads. Do not attempt to use the unit as a step. This will cause damage to the unit and could cause personal injury. Do not use in hazardous locations.

**CAUTION:** Do not use the case as leverage when mounting this unit or tightening fittings. Use the wrenching flats on the valve body.

**SPECIFICATIONS**

**Body:** 2 – piece.

**Line Size:** 1/4" to 1".

**End Connections:** Female NPT.

**Pressure Limit:** 200 psi (13.8 bar).

**Wetted Materials:** Body, End Cap: Forged Brass  
Ball, Stem: Chrome Plated Brass  
Seat: RTFE  
Stem Seal: Fluoroelastomer  
Bushings: Brass.

**Temperature Limits:** 35 to 165°F (2 to 74°C).

**Other Materials:** Thrust washer: RTFE

Fasteners: Stainless Steel.

**Discharge Time:** 3.5 seconds non-adjustable.

**Discharge Volume Cycle:** 1/2": 0.92 gal @ 80 psi (valve only);  
3/4": 1.64 gal @ 80 psi;  
1": 2.50 gal @ 80 psi.

**ACTUATOR**

**Electric**

**Power Requirements:** 110 VAC, 60 Hz, single phase.

**Power Consumption:** 2.5 A.

**Cycle Time Adjustable:** 5 min, 10 min, 15 min, 30 min, 1 hr, 2 hr, 4 hr, 8 hr, 16 hr, 24 hr.

**Enclosure Rating:** NEMA 4.

**Housing Material:** Polycarbonate.

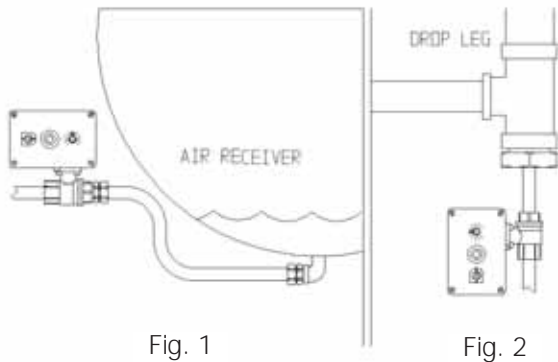
**Electrical Connection:** 18 AWG X3C, 8 ft (24 m) power cord.

**INSTALLATION**

Figures 1 & 2 show typical installations of the drain valve. It is recommended that the motorized drive be removed from the valve before piping the valve into your system. Then reinstall the motorized drive unit to the valve. This can be done using the four screws holding the valve to the case.

Install the automatic drain valve to the compressed air system at a point where moisture would tend to collect. Pipe the opposite end of the valve to your discharge area.

Note: This unit may be mounted in any position with the flow in either direction. For air receiver applications, (fig. 1) it is recommended copper tubing be used for all connection of the pressure side of the valve. For drop leg applications, (fig. 2) install ridged tubing or pipe from the valve to the lowest practical point of your system.



**WARNING:** Always disconnect power source before working on this unit. Failure to do so could result in personal injury. The valve is under pressure. Discharge of compressed gas or fluids will occur during any cycling of the ball valve when unit is installed in the piping system. Eye protection is recommended.

**OPERATION**

Plug the cord set into a proper power source. Set the dial at the desired frequency of operation. The valve will cycle and the timing sequence will begin. To change the timing sequence, simply change the code setting and the timer will reset. The test button may be used to cycle the unit at any time.

**MAINTENANCE**

Periodic maintenance is recommended to ensure long, dependable service from your drain valve. Check power cord for breaks in the outer jacket or damage to the plug. The case should be kept clean so that label instructions are legible. The ball valve should be checked for leakage at the downstream side. The Series DV is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

TROUBLESHOOTING CHART		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Valve does not cycle	Proper power is not reaching unit Timer set improperly	Check that power cord is plugged into the proper power source. Check power source. Push test button. Reset timer.
Ball valve leaks at discharge side	Excessive seat damage from debris	Push test button to flush valve. Replace ball valve.
Unit cycles but does not discharge water and/or air	No pressure upstream Valve or line clogged with debris	Check that Pneumatic system is pressurized. Disconnect power. Depressurize pneumatic system. Remove drain valve and check for blockage in the valve and the line.
Valve discharges mostly air each cycle	Timer set improperly	Reset timer to longer intervals
Valve discharges all liquid each cycle	Timer set improperly	Reset timer to shorter intervals