

### CVS Series 912 LP Gas Regulator

The CVS Series 912 LP Gas Regulator is made for low pressure (inches of water column) vapour service. Typical applications include LP gas, natural gas and air. The Series 912 is not intended for liquid service.

Standard outlet pressure range is 9.25 to 13 Inches (23-32 Bar) Water Column, typical factory setting is 11" WC. The CVS Series 912 is an internal relief regulator, proper venting and installation is required by trained personnel in accordance with applicable codes and safety procedures.

Maximum inlet pressure is 250 psig (17.2 Bar). Vapour capacity standard is 350000 BTU/HR propane.

Temperature limits are -20°F to 160°F (-29°C to 71°C).



CVS Series 912 LP Gas Regulator

## SPECIFICATIONS – CVS Series 912 LP Gas Regulator

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### **Model CVS 912-101:**

**Inlet:** 1/4" NPT

**Outlet:** 3/8" NPT

**Service:** Single Stage

**Maximum Inlet Pressure:** 250 psig (17.2 bar)

**Vapour Capacity:** 350,000 BTU/HR Propane

**Standard Outlet Pressure Range:** 9.25" to 13" W.C./psig (23 to 32 bar)

**Internal Relief:** 16" to 39" W.C./psig (40 to 97 bar), approximate pressure above outlet pressure for internal relief discharge.

## INSTALLATION

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It is recommended that only qualified or authorized personnel install and maintain the CVS 912 regulator.

**Prior to installing**, make sure there is no damage to the regulator, as well as foreign debris in all tubing or piping connections to the installation.

Follow proper safety and lockout procedures.

Proper venting of the CVS 912 LP gas regulator is required. Indoor applications require vent line to prevent accumulation of gas which may result in personal injury or damage.

Keep vent free to permit proper flow in and out of the regulator. Install in a location to prevent accumulation of debris that could potentially plug the vent and vent lines.

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Choose appropriate location to install the regulator.

The location should be high enough so that the vent may not become obstructed, or rain splatter may not freeze the vent of the regulator. Suggested height of 18 inches or greater above ground in order to prevent buildup or freezing. When possible, it is recommended that a protective hood be used over the vent line or vent assembly in order to prevent any build up or freezing of the vent lines. If the mounting location is outdoors and it is not possible to utilize a protective hood, the regulator must be orientated so that the vent is pointed down. This is to prevent freezing of water or other materials from entering the vent and affecting operation of the regulator. It also allows for condensate to drain from the spring case.

Installation location should also be protected from accidental damage from traffic or other sources. The regulator vent or vent assembly discharge should be over 3 feet horizontally from a building opening below the discharge level.

## INSTALLATION, continued

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If mounting the Series 912 in a horizontal application such as single cylinder installations, it must be covered by a protective hood in order to prevent blockage and or buildup of the regulators vent.

CVS Series 912 Regulators which are to be installed indoors are limited to 20 psig maximum inlet pressure. A vent line is required to the outside of the installation. All installation precautions are necessary to keep the vent line free from debris and buildup.

When installing the Series 912, always follow proper piping procedures. Use a suitable piping compound on all tubing male ends.

Note the flow direction arrows prior to installations, inlet connection will be 1/4" NPT, while outlet connection is 3/8" NPT.

Periodic inspections are required to ensure proper operation of the regulator assembly. Certain operating conditions may require increased inspection intervals.

## ADJUSTMENTS

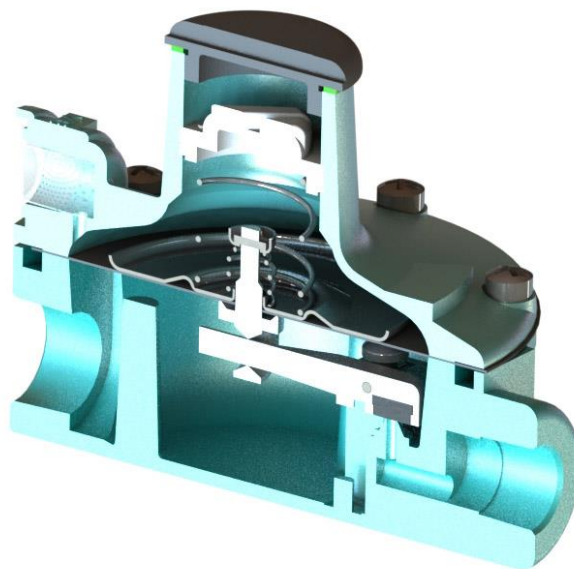
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CVS Series 912 Regulators are typically set from manufacturing for 11 inches W.C. (27 mbar).

If required, the outlet pressure may be increased by removing the Closing Cap (7) and turning the Adjustment Screw (5) clockwise. Outlet pressure may be decreased by turning the Adjusting Screw counter-clockwise.

A pressure gauge or water manometer may be required to verify the regulator output after adjustments are made.

Once final output adjustments are complete, replace the Closing Cap.



CVS Series 912 Cutaway

## MAINTENANCE

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Follow proper safety and lockout procedures. Do not perform any maintenance or repairs without ensuring the regulator has been isolated from process pressure and relieved of any internal pressure.

A regulator that has been disassembled for any repair must be tested for proper operation prior to returning it to service.

Certain service conditions may require increased inspection intervals. Consult applicable regulations as required.

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Regulator inspections shall include:

1. Visually inspect the regulator and associated components installation
2. Inspect the vent frequently for obstructions or freezing
3. Visually check for corrosion throughout
4. Verify the proper regulator for the application
5. Note the age of the regulator, under ideal conditions it is recommended that the regulator be replaced after 15 years of service. Certain conditions may require increased replacement interval.
6. Inspect the regulator and all components for any condition that may cause uncontrolled release of LP gas.

Personal injury, equipment damage may occur if the above procedures are not followed.

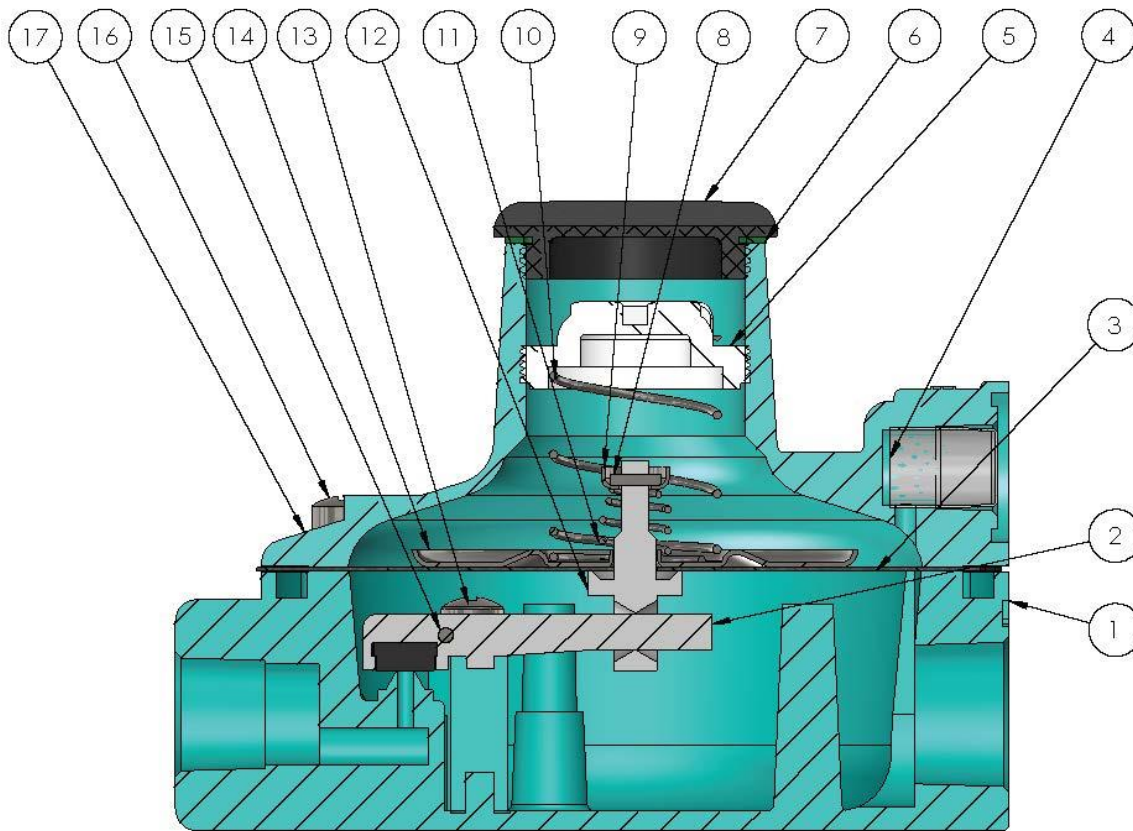
It is imperative for proper operation and safety that the vent assembly does not become plugged, frozen or clogged by debris. Check the vent screen to make sure it is clean and properly in place to prevent any blockage.

Should a regulator have the internals exposed to water, or show signs of internal or external corrosion, it is recommended to replace the regulator. An internal inspection may require the complete shutdown of the system in order to remove the adjusting screw to visually inspect the internals.

### Repairs

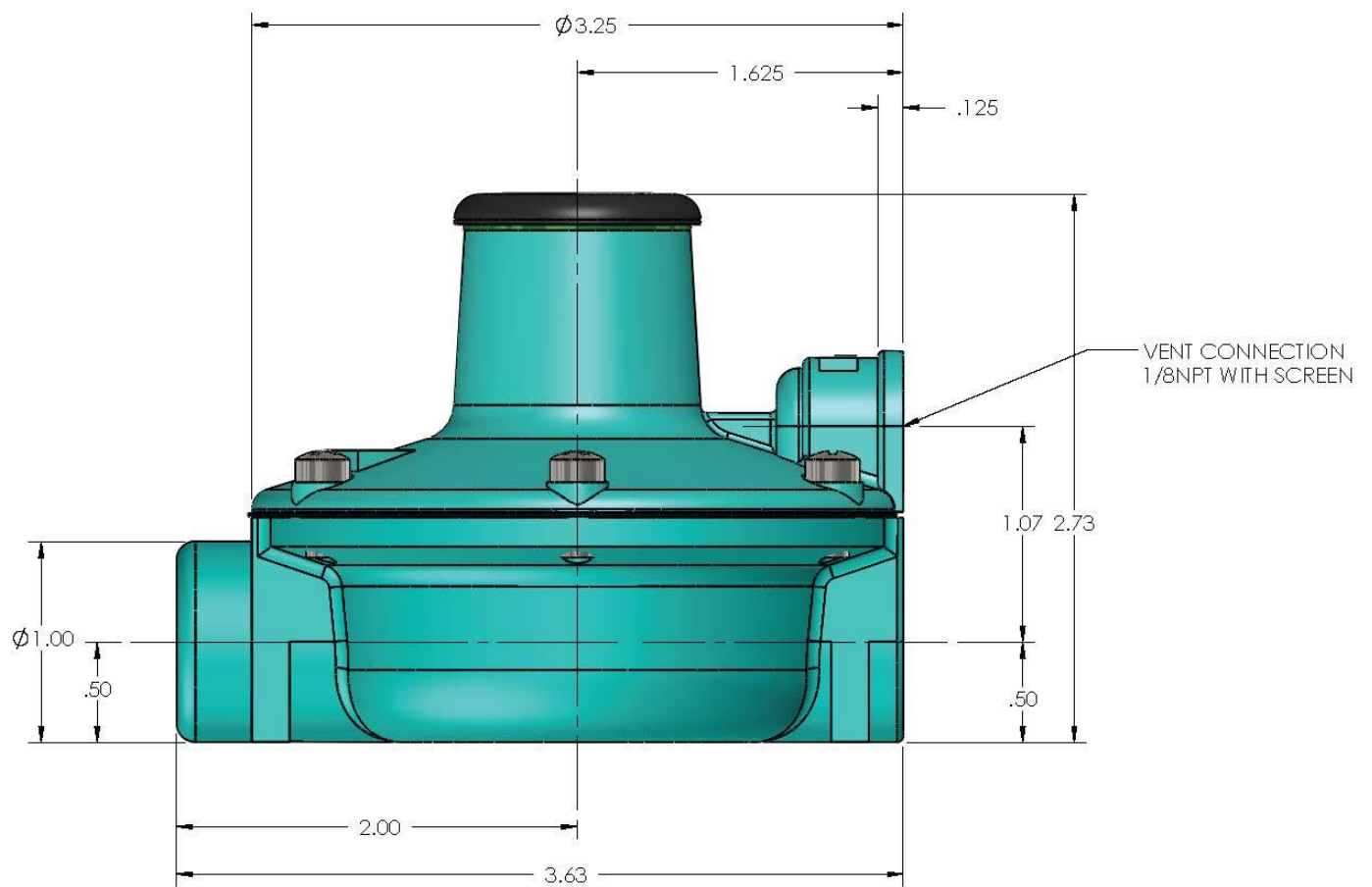
All regulators that have been disassembled for any inspections or repairs should be tested for proper operation prior to being placed back in service. Contact a CVS Controls representative.

## ASSEMBLY



Item	Part Number	Description	Qty
1	CVS 3B782444042	Series 912, Body, Zinc	1
2	CVS 13003000A2	Series 912, Disk Holder Assembly	1
3	CVS 1B783702012	Series 912, Diaphragm	1
4	CVS 0W086343062	Vent Screen, 40x40 mesh, .010" wire, monel	1
5	CVS T1027706992	Series 912, Adjusting Screw	1
6	CVS 1E765204022	Series 912, Closing Cap Gasket	1
7	CVS T1027606992	Series 912, Closing Cap	1
8	CVS 1B783535032	Pin, .046" (dia) X .22" (long), 304 SST	1
9	CVS 1B783425072	Series 912, Spring Seat	1
10	CVS 1L507937022	Spring, 9.25"-13" W.C. (23-32 bar), no paint	1
11	CVS 1B784827012	Series 912, Relief Valve Spring	1
12	CVS 1C3650X0012	Series 912, Relief Valve Seat	1
13	CVS 1A346128982	#6x32, .31" long, CR-PHM Screw	2
14	CVS 1B783824132	Series 912, Diaphragm Plate	1
15	CVS 0U091435032	Series 912, Fulcrum Rod	1
16	CVS 1B783928982	#8 x 32, .375" long, fillister head phillips screw	6
17	CVS 1E295544042	Series 912, Spring Case	1

## DIMENSIONS



## NOTES:

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