

CVS

Controls Ltd.

INSTRUCTION MANUAL

CVS P37 LP Gas Reducing Regulator

The CVS Controls P37 Regulator is a non-relieving, pressure reducing regulator suitable for use in LP gas applications (Natural Gas and Propane). As well as standard compressed air applications.

Features:

The balanced pintle design of the CVS P37 Regulator eliminates unwanted changes in the outlet pressure, due to inlet pressure variances.

Typical applications include:

- Compressed Air
- Actuators
- Valve Positioning
- Pneumatic Pressure Controllers
- Fuel Gas



CVS P37 LP Gas Regulator

Head Office
3900 101 Street
Edmonton, Alberta
T6E 0A5
Canada
Office: (780) 437-3055
Fax: (780) 436-5461

CVS
Controls Ltd

Calgary Sales Office
3516 114 Avenue SE
Calgary, Alberta
T2Z 3V6
Canada
Office: (403) 250-1416
Fax: (403) 291-9487

Specifications: CVS P37

Maximum Inlet Pressure: 400 PSIG (28 Bar)

Inlet/Outlet Port Size: 3/4", and 1/2"

Adjustments: T Handle Standard

Construction: Aluminum, Plated Steel,
Buna-N, Brass, Zinc

Diaphragm Material: Nitrile/Polyester
Fabric

Temperature Range: -40°F to 200°F (-40°C
to 93.3°C)

Approximate Shipping Weight: 1.4lbs
(0.63Kg)

Maximum Heat: Liquid Propane Gas
Capacity in BTU/H: 1/2", 27,000,000; 3/4",
30,000,000

Outlet Pressure Range: 0-60 PSIG*

***Note:** The recommended operating range
is between 10% and 100% of the
adjustment range. Although the regulator
may be shutoff, it is not intended for use in
applications below 3 PSIG

Max Flow Capacity: (at max range)
180 SCFM, Air Ps @140 PSIG for 1/2"
200 SCFM, Air Ps @140 PSIG for 3/4"

Installation:

It is recommended that only qualified or authorized personnel install and maintain the CVS P37 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.

Ensure proper safety procedures are adhered to during installation and maintenance.

It is recommended that the CVS P37 Regulator be installed as close as possible to the supply instrument.

The CVS P37 may be installed at any angle without affecting performance.

Ensure the proper flow direction is used to prevent internal damage to the regulator. The flow direction is marked on the regulator body assembly as IN and OUT.

Apply a small amount of piping compound to the threads of the inlet and outlet piping.

Prior to startup, relieve all pressure on the spring by turning the T-Handle counter clockwise. Once supply pressure is applied to the regulator, test for leakage on all installation fittings.

To put the CVS P37 into service, slowly turn the T-Handle clockwise until the desired downstream pressure has been achieved. Tighten the locknut on the T-Handle to finalize installation.

Periodic inspection and maintenance may be required. If inspection reveals any issues, remove from service and repair or replace as required.

Contact a CVS Controls representative for more information.

Note: The CVS P37 Regulator is a non-relieving regulator. The use of a relief valve is recommended in the installation. Additionally the P37 cannot exhaust excess pressure at the regulator assembly. It may be require to cycle downstream flow in order to achieve an accurate output pressure.

Repair and Maintenance:

Refer to the assembly drawing for part identification to assist with the following instructions.

Disassembly:

1. Remove all spring pressure by turning the T-Handle (1) counter clockwise.



2. Remove Qty. 6 , screws (18) holding the Spring Case (2) and the Body Assembly (7) together. Lift off the spring case, and remove the Spring (4), and Upper Spring Seat (3)

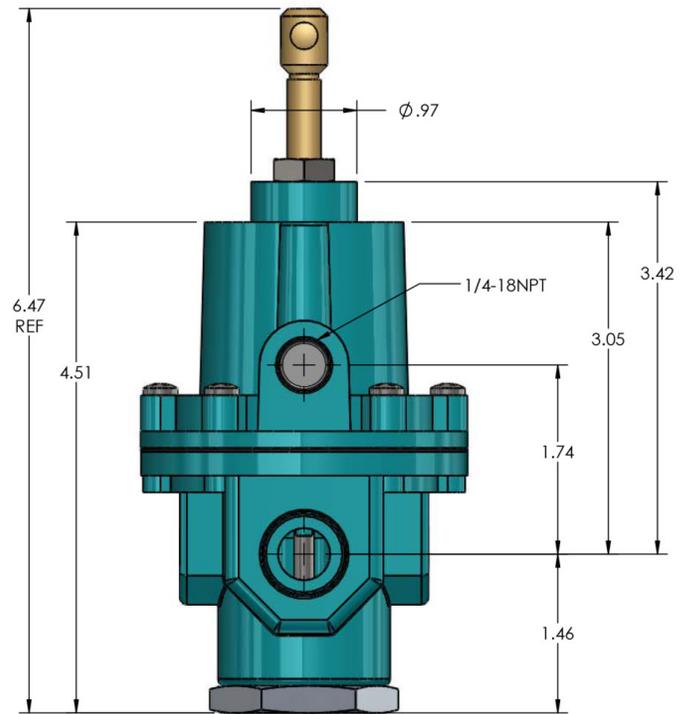
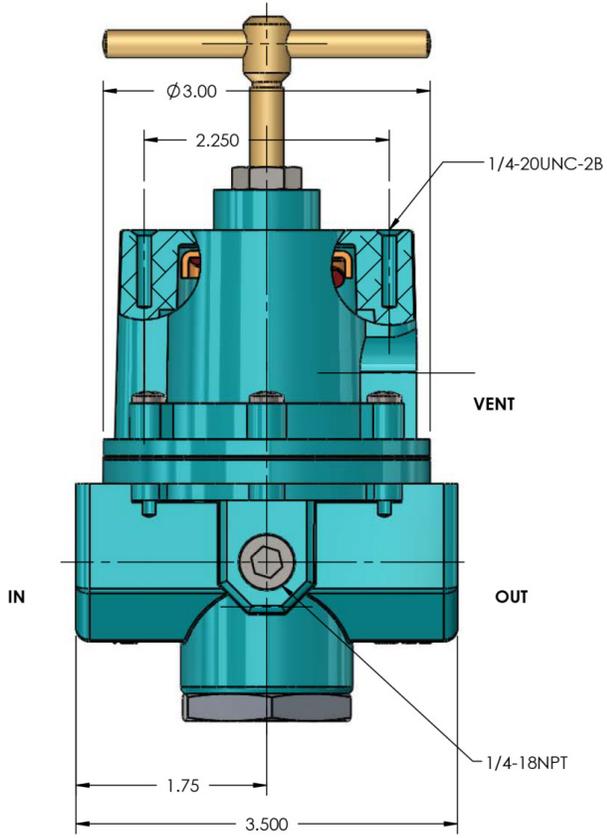


3. Unscrew the Diaphragm Assembly from the Driving Pintle (9), by first removing the Bottom Plug (12), O-Ring (13), and Pintle Spring (11). Holding the Piston Assembly (10), loosen the diaphragm assembly using a $\frac{3}{4}$ " wrench or similar. Lift out the diaphragm assembly from the regulator body.

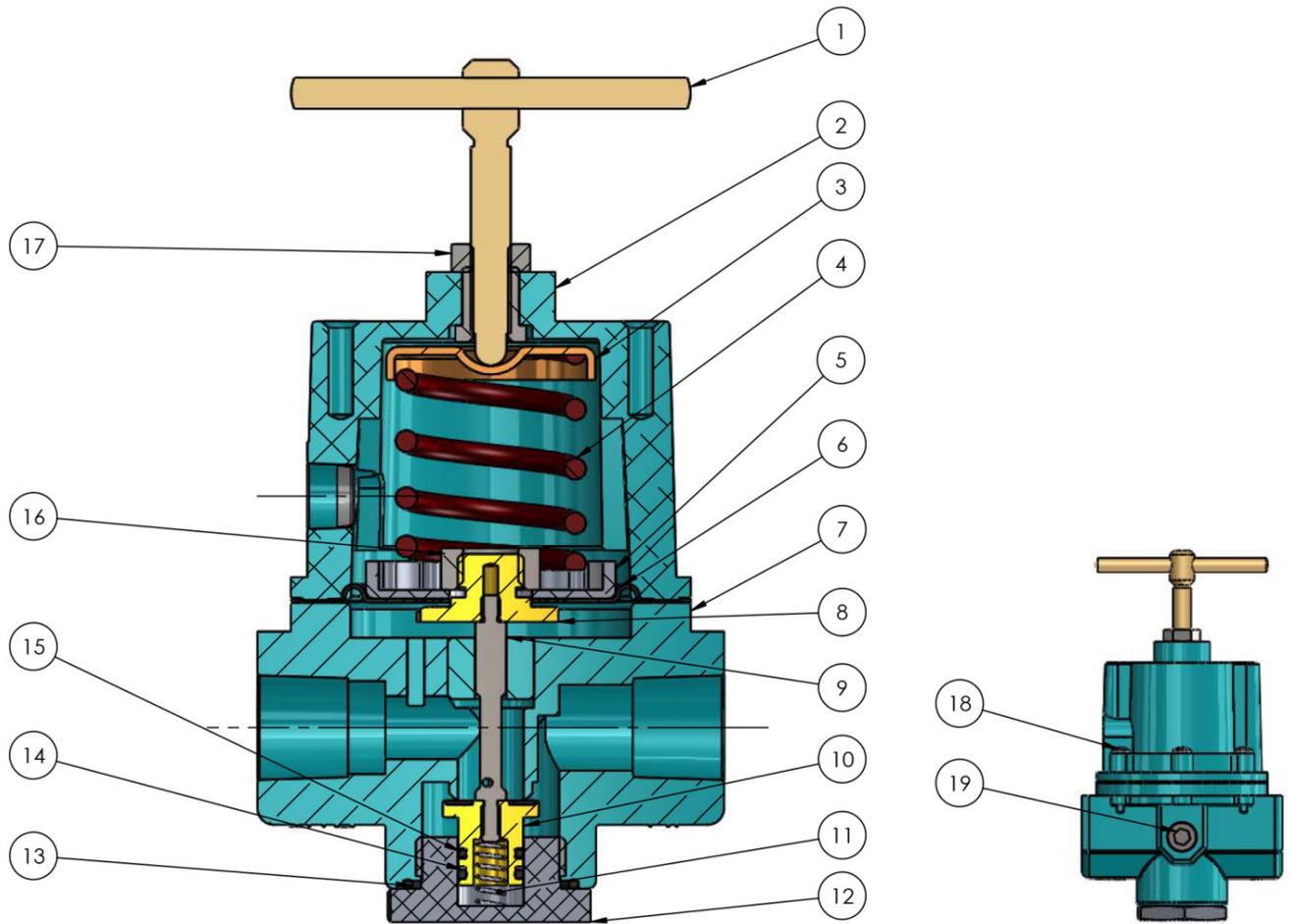


Inspect all components for visible damage and replace or repair as necessary.
Reassemble in reverse order.

Dimensional Data: Inches



CVS P37 Assembly:



| Item | Part Number | Description | Item | Part Number | Description |
|------|--------------|-----------------------------|------|--------------|----------------------------------|
| 1 | CVS P3700001 | Adjusting Screw Assembly | 11 | CVS P3700011 | Pintle Spring |
| 2 | CVS P3700002 | Spring Case Assembly | 12 | CVS P3700012 | Bottom Plug |
| 3 | CVS P3700003 | Upper Seat Spring | 13 | CVS P3700013 | o-ring, #025 |
| 4 | CVS P3700004 | Spring | 14 | CVS P3700014 | o-ring, #012 |
| 5 | CVS P3700005 | Lower Seat Spring | 15 | CVS P3700015 | Quad Ring, #012 |
| 6 | CVS P3700006 | Diaphragm | 16 | CVS P3700016 | Hex Nut, 1/2-13 |
| 7 | CVS P3700007 | Body Assembly , 1/2-14 Port | 17 | CVS P3700017 | Hex Nut, 5/16-24UNF |
| | CVS P3700107 | Body Assembly, 3/4-14 Port | 18 | CVS P3700018 | RH Screw, 8x32, .87" long, (6ea) |
| 8 | CVS P3700008 | Diaphragm Screw | 19 | CVS P3700019 | 1/4" NPT Plug, (2ea) |
| 9 | CVS P3700009 | Driving Pintle | | | |
| 10 | CVS P3700010 | Piston Assembly | | | |

Notes:

Notes:

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Website: www.cvs-controls.com

Email: info@cvs-controls.com

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