

Introduction

This installation guide provides instructions for installation, startup, and adjustment. To receive a copy of the Instruction Manual, contact your local Sales Office or view a copy at www.fisherregulators.com. For further information refer to: 67C Series Instruction Manual, form 5469, D102601X012.

P.E.D. Category

This product may be used as a safety accessory with pressure equipment in the following Pressure Equipment Directive 97/23/EC categories. It may also be used outside of the Pressure Equipment Directive using sound engineering practice (SEP) per table below.

| PRODUCT SIZE | CATEGORY | FLUID TYPE |
|--------------|----------|------------|
| 1/4 NPT | SEP | 1 |

Specifications

Body Size and End Connection Style

1/4 NPT

Maximum Inlet Pressure (Body Rating)⁽¹⁾

17,2 bar / 250 psig

Maximum Emergency Outlet Pressure⁽¹⁾

3,4 bar / 50 psig over outlet pressure setting

Proof Test Pressure

All Pressure Retaining Components have been proof tested per Directive 97/23/EC - Annex 1, Section 7.4

Outlet Pressure Ranges⁽¹⁾

0 to 1,4 bar / 0 to 20 psig
0 to 2,4 bar / 0 to 35 psig
0 to 4,1 bar / 0 to 60 psig
0 to 8,6 bar / 0 to 125 psig

Temperature Capabilities⁽¹⁾

With Nitrile (NBR):

Standard Bolting: -29° to 82°C / -20° to 180°F

Stainless Steel Bolting: -40° to 82°C / -40° to 180°F

With Fluorocarbon (FKM):

Polyethylene Filter⁽³⁾ (Standard): -18° to 82°C / 0° to 180°F

Polyvinylidene (PVDF), Stainless steel, or Glass

Filter (Optional): -18° to 149°C / 0° to 300°F

With Silicone (VMQ)⁽²⁾ Diaphragm and Low

Temperature bolting: -51° to 82°C / -60° to 180°F

With Gauges: -29° to 82°C / -20° to 180°F

1. The pressure/temperature limits in this Installation Guide and any applicable standard or code limitation should not be exceeded.
2. Silicone (VMQ) is not compatible with hydrocarbon gas.
3. Do not use in high aromatic hydrocarbon service.

Installation



WARNING

Only qualified personnel should install or service a regulator. Regulators should be installed, operated, and maintained in accordance with international and applicable codes and regulations, and Emerson Process Management Regulator Technologies Inc. instructions.

If the regulator vents fluid or a leak develops in the system, it indicates that service is required. Failure to take the regulator out of service immediately may create a hazardous condition.

Personal injury, equipment damage, or leakage due to escaping fluid or bursting of pressure-containing parts may result if this regulator is overpressured or is installed where service conditions could exceed the limits given in the Specifications section, or where conditions exceed any ratings of the adjacent piping or piping connections.

To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by the appropriate code, regulation, or standard) to prevent service conditions from exceeding limits.

Additionally, physical damage to the regulator could result in personal injury and property damage due to escaping fluid. To avoid such injury and damage, install the regulator in a safe location.

The internal relief valve in the 67C Series regulators does not provide full overpressure protection. The internal relief valve is designed for minor seat leakage only.

Clean out all pipelines before installation of the regulator and check to be sure the regulator has not been damaged or has collected foreign material during shipping. For NPT bodies, apply pipe compound to the external pipe threads. For flanged bodies, use suitable line gaskets and approved



67C and 67CF Series

pipng and bolting practices. Install the regulator in any position desired, unless otherwise specified, but be sure flow through the body is in the direction indicated by the arrow on the body.

Note

It is important that the regulator be installed so that the vent hole in the spring case is unobstructed at all times. For outdoor installations, the regulator should be located away from vehicular traffic and positioned so that water, ice, and other foreign materials cannot enter the spring case through the vent. Avoid placing the regulator beneath eaves or downspouts, and be sure it is above the probable snow level.

Overpressure Protection

The recommended pressure limitations are stamped on the regulator nameplate. Some type of overpressure protection is needed if the actual inlet pressure exceeds the maximum operating outlet pressure rating. Overpressure protection should also be provided if the regulator inlet pressure is greater than the safe working pressure of the downstream equipment.

Regulator operation below the maximum pressure limitations does not preclude the possibility of damage from external sources or debris in the line. The regulator should be inspected for damage after any overpressure condition.

Startup

The regulator is factory set at approximately the midpoint of the spring range or the pressure requested, so an initial adjustment may be required to give the desired results. With proper installation completed and relief valves properly adjusted, slowly open the upstream and downstream shutoff valves.

Adjustment

To change the outlet pressure, remove the closing cap or loosen the locknut and turn the adjusting screw clockwise to increase outlet pressure or counterclockwise to decrease pressure. Monitor the outlet pressure with a test gauge during the adjustment. Replace the closing cap or tighten the locknut to maintain the desired setting.

Taking Out of Service (Shutdown)



WARNING

To avoid personal injury resulting from sudden release of pressure, isolate the backpressure regulator from all pressure before attempting disassembly.

Parts List

Types 67CF and 67CFR

| Key | Description |
|--------|----------------------------|
| 1 | Body |
| 2 | Drain Valve |
| 3 | Flange Screw |
| 4* | O-Ring |
| 5 | Dripwell |
| 6* | Filter Element |
| 7 | Spring Case Assembly |
| 9 | Filter Retainer |
| 10*(1) | Valve Cartridge |
| 11*(1) | Valve Plug |
| 12*(1) | Valve Spring |
| 13*(1) | Valve Retainer |
| 14*(1) | O-Ring |
| 15*(1) | Soft Seat |
| 16* | Diaphragm Assembly |
| 17 | Spring |
| 18 | Adjusting Screw |
| 19 | Locknut |
| 20 | Upper Spring Seat |
| 22 | Pressure Gauge (not shown) |
| 23 | Pipe Plug (not shown) |
| 24 | Tire Valve (not shown) |
| 26* | Filter Gasket |
| 30 | NACE Tag (not shown) |
| 31 | Panel Mounting Nut |
| 33 | Closing Cap (not shown) |
| 34 | Spacer (not shown) |
| 37* | Thrust Washer |

Types 67C and 67CR

| Key | Description |
|--------|----------------------------|
| 1 | Body |
| 3 | Flange Screw |
| 4* | O-Ring |
| 7 | Spring Case Assembly |
| 10*(1) | Valve Cartridge |
| 11*(1) | Valve Plug |
| 12*(1) | Valve Spring |
| 13*(1) | Valve Retainer |
| 14*(1) | O-Ring |
| 15*(1) | Soft Seat |
| 16* | Diaphragm Assembly |
| 17 | Spring |
| 18 | Adjusting Screw |
| 19 | Locknut |
| 20 | Upper Spring Seat |
| 22 | Pressure Gauge (not shown) |
| 23 | Pipe Plug (not shown) |
| 24 | Tire Valve (not shown) |
| 30 | NACE Tag (not shown) |
| 31 | Panel Mounting Nut |
| 32 | Wire Seal (not shown) |
| 33 | Closing Cap (not shown) |
| 39 | Bottom Plate |

* Recommended Spare Part

1. Valve Cartridge Assembly includes keys 10, 11, 12, 13, 14, and 15.

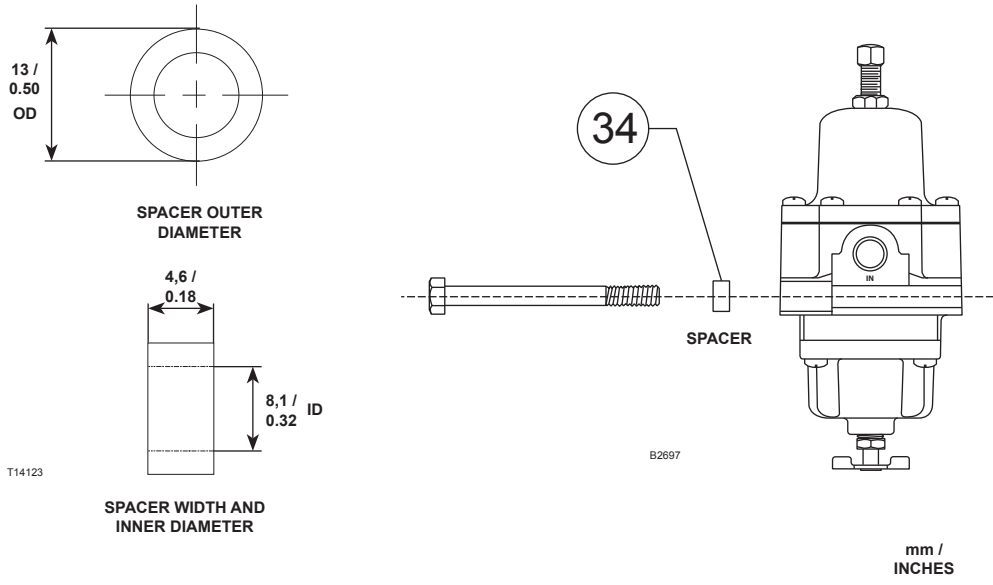


Figure 1. Types 67CF and 67CFR Spacer Diameter and Installation

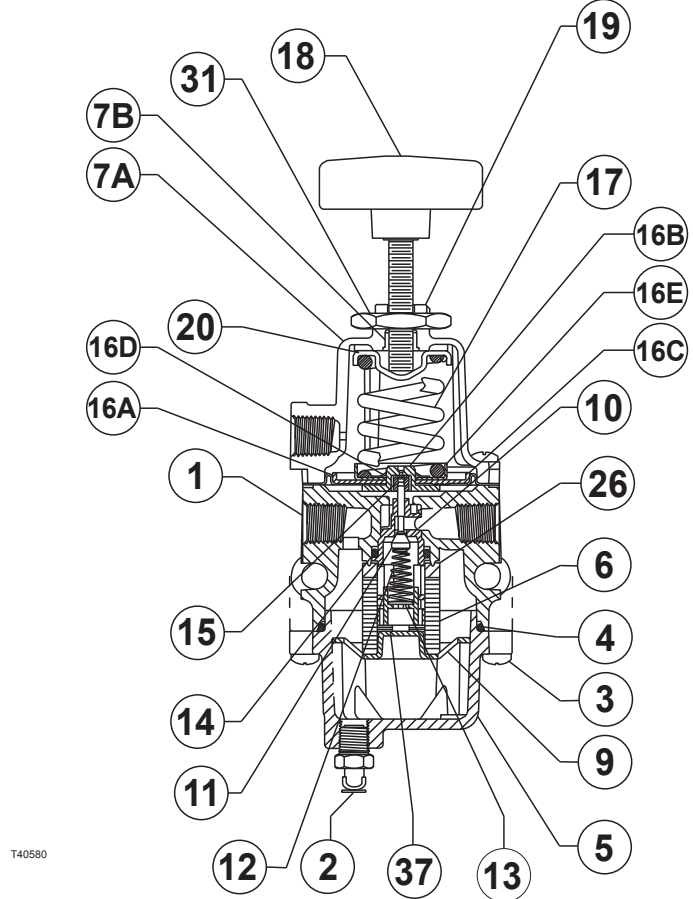
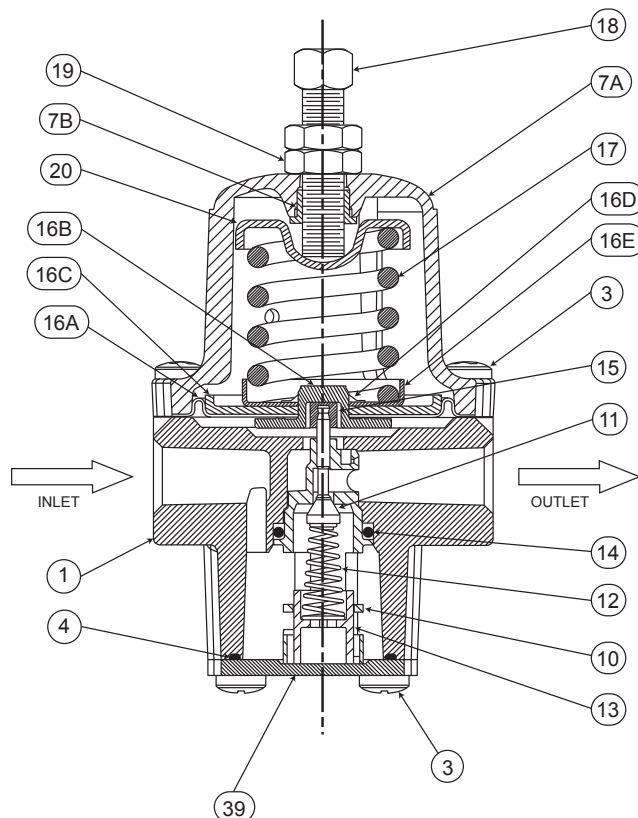


Figure 2. Types 67CF and 67CFR Assembly

67C and 67CF Series



T40645

Figure 3. Types 67C and 67CR Assembly

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