

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.fisher.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 categories. It may also be used outside of the Pressure Equipment Directive using sound engineering practice (SEP) per table below. For information on the current PED revision see Bulletin: [D103053X012](#).

| 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 PED

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: -40 to 82°C / -40 to 180°F

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 piping and bolting

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.

67C and 67CF Series

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)



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

Parts List

| 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 |
| 32 | Wire Seal (not shown) |
| 33 | Closing Cap (not shown) |
| 34 | Spacer (not shown) |
| 37* | Thrust Washer |
| 39 | Bottom Plate |
| 45 | Screen Vent |

* Recommended Spare Part

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

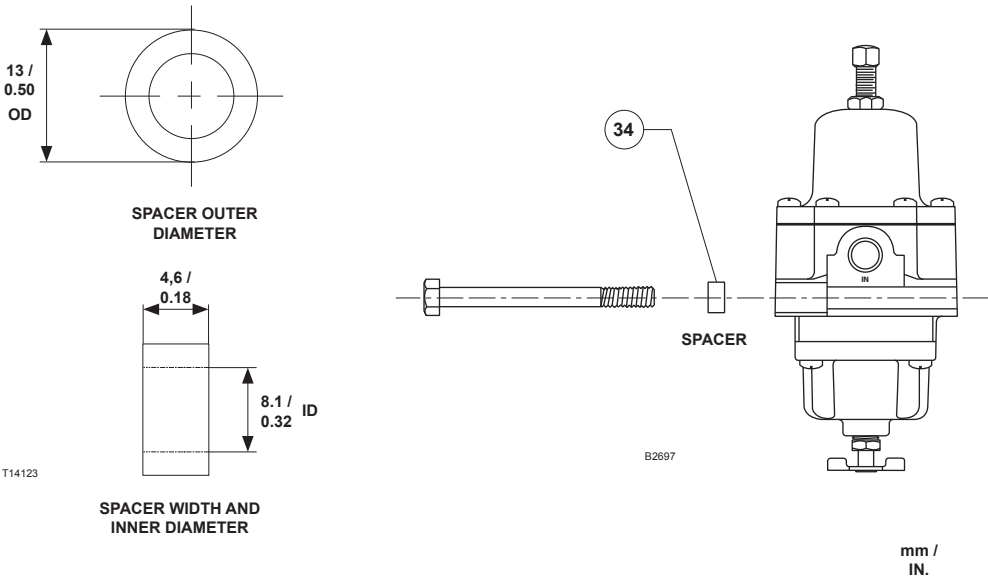
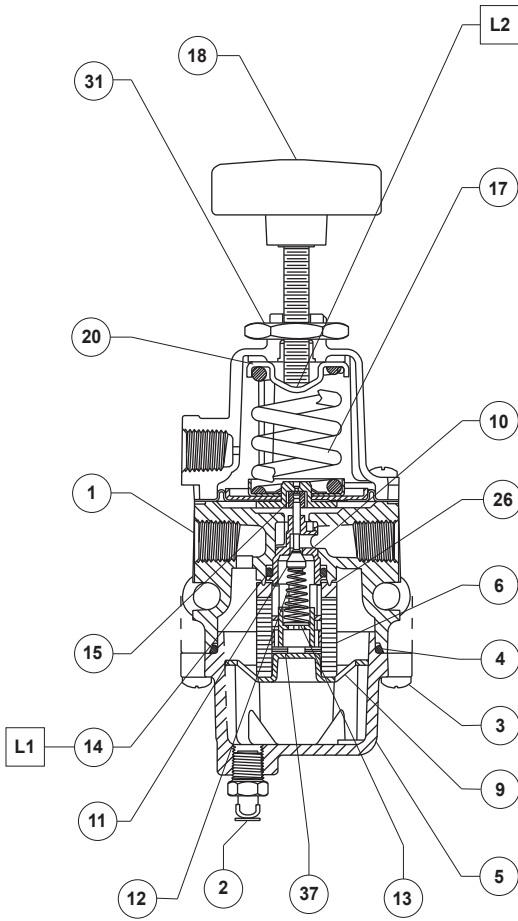


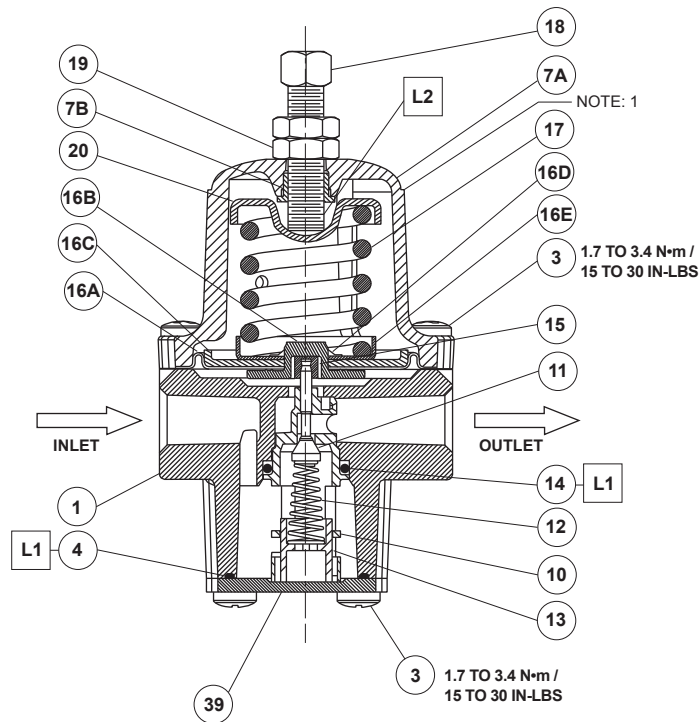
Figure 1. Types 67CF and 67CFR Spacer Diameter and Installation



T40580
 □ APPLY LUBRICANT (L):
 L1 = MULTI-PURPOSE POLYTETRAFLUOROETHYLENE (PTFE) LUBRICANT
 L2 = ANTI-SEIZE COMPOUND

Figure 2. Types 67CF and 67CFR Assembly

67C and 67CF Series



T40645
 APPLY LUBRICANT (L)
 L1 = MULTI-PURPOSE POLYTETRAFLUOROETHYLENE (PTFE) LUBRICANT
 L2 = ANTI-SEIZE COMPOUND

Figure 3. Types 67C and 67CR Assembly

Webadmin.Regulators@emerson.com

Facebook.com/EmersonAutomationSolutions

Fisher.com

LinkedIn.com/company/emerson-automation-solutions

Twitter.com/emr_automation

Emerson Automation Solutions Regulator Technologies

Americas

McKinney, Texas 75070 USA
 T +1 800 558 5853
 +1 972 548 3574

Asia Pacific

Singapore 128461, Singapore
 T +65 6770 8337

Europe

Bologna 40013, Italy
 T +39 051 419 0611

Middle East and Africa

Dubai, United Arab Emirates
 T +971 4 811 8100

D102601X014 © 2002, 2017 Emerson Process Management Regulator Technologies, Inc. All rights reserved. 05/17.

The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are the property of their prospective owners. Fisher™ is a mark owned by Fisher Controls International LLC, a business of Emerson Automation Solutions.

The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

Emerson Process Management Regulator Technologies, Inc does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Emerson Process Management Regulator Technologies, Inc. product remains solely with the purchaser.



For further information on the current PED revision see Bulletin: [D103053X012](#) or scan the QR code.

