

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: Types 1301F and 1301G Instruction Manual (Form 1111, D100341X012).

P.E.D. Categories

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 Styles

NPS 1/4, NPT screwed (one inlet and two or three outlet connections)

Maximum Allowable Inlet Pressure⁽¹⁾

414 bar / 6000 psig

Outlet Pressure Ranges⁽¹⁾

Type 1301F: 0.69 to 5.2 bar / 10 to 75 psig, 3.4 to 10.3 bar / 50 to 150 psig, and 6.9 to 15.5 bar / 100 to 225 psig

Type 1301G: 13.8 to 34.5 bar / 200 to 500 psig

Maximum Emergency Outlet Pressure⁽¹⁾

Type 1301F: 17.2 bar / 250 psig

Type 1301G: 37.9 bar / 550 psig

Proof Test Pressure

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

Temperature Capabilities⁽¹⁾

Nylon (PA) Valve Disks: -29 to 82°C / -20 to 180°F

PTFE Valve Disks: -29 to 204°C / -20 to 400°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 Fisher® 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.

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 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 markings on the body.

1. The pressure/temperature limits in this Installation Guide and any applicable standard or code limitation should not be exceeded.

Type 1301

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, 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. Tighten the locknut to maintain the desired setting.

Taking Out of Service (Shutdown)

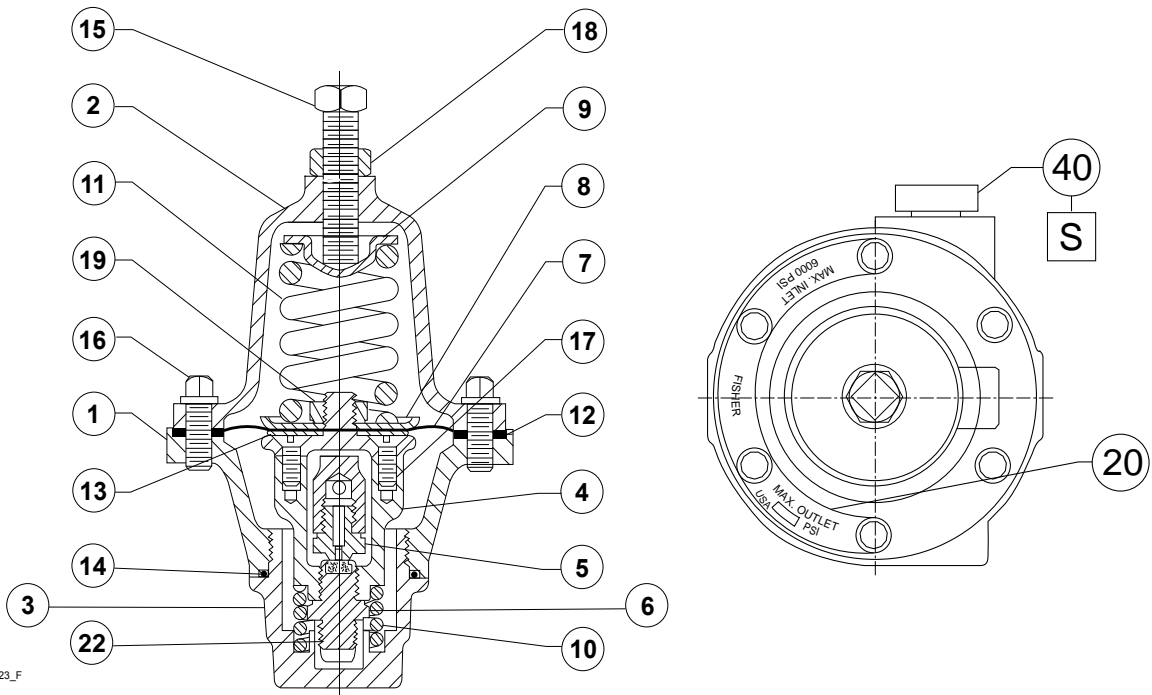


WARNING

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

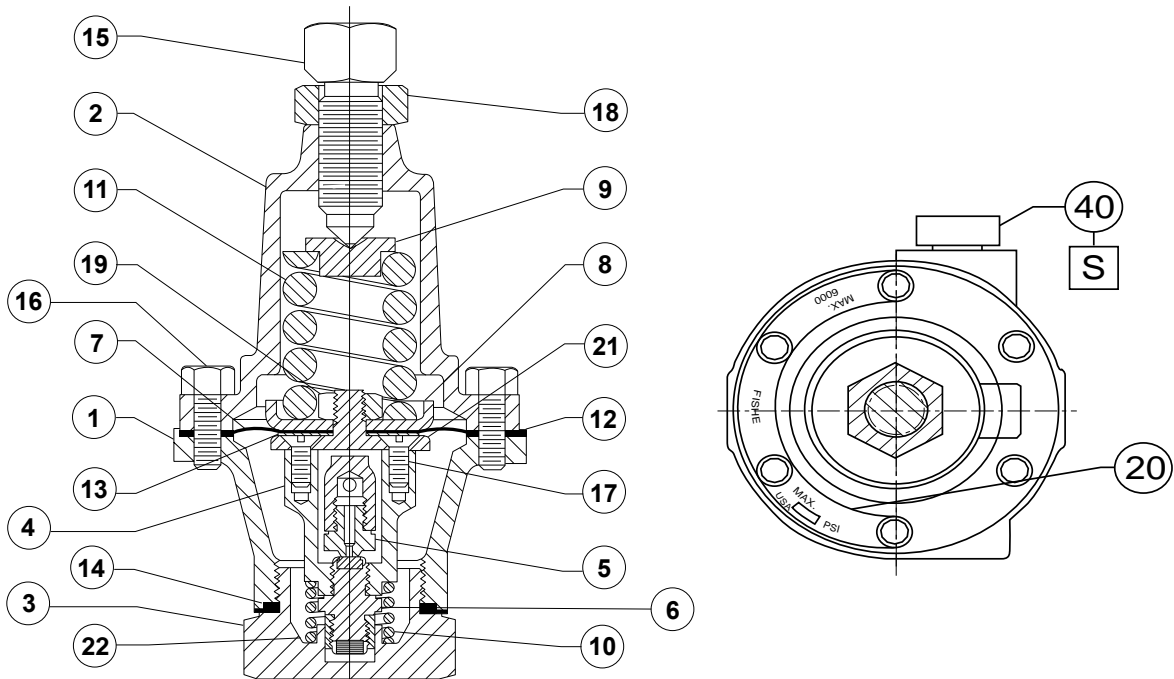
Parts List

Key	Description
1	Body
2	Spring Case
3	Bottom Cap
4	Yoke
5	Orifice
6	Valve Disk Assembly
7	Diaphragm
8	Diaphragm Plate
9	Upper Spring Seat
10	Valve Spring
11	Spring
12	Body Gasket
13	Diaphragm Plate Gasket
14	Bottom Cap O-ring
15	Adjusting Screw
16	Spring Case Cap Screw
17	Machine Screw
18	Locknut
19	Diaphragm Locknut
21	Top Connector
22	Valve Disk Collar
24	Handwheel (Not shown)
26	Vent Screen (Not shown)
27	Mounting Post (Not shown)
28	Mounting Screw (Not shown)
29	Screw (Not shown)
30	Washer (Not shown)
32	Mounting Bracket (Not shown)
33	Bracket Cap Screw (Not shown)
34	Bracket Mounting Washer (Not shown)
35	NACE Tag (Not shown)
36	Tag Wire (Not shown)
38	Body O-Ring (Not shown)
39	Top Connector O-Ring (Not shown)
40	Pipe Plug



□ APPLY SEALANT (S)

Figure 1. Type 1301F Regulator



□ APPLY SEALANT (S)

Figure 2. Type 1301G Regulator

Type 1301

Industrial Regulators

Emerson Process Management Regulator Technologies, Inc.

USA - Headquarters
McKinney, Texas 75069-1872, USA
Tel: +1 800 558 5853
Outside U.S. +1 972 548 3574

Asia-Pacific
Shanghai 201206, China
Tel: +86 21 2892 9000

Europe
Bologna 40013, Italy
Tel: +39 051 419 0611

Middle East and Africa
Dubai, United Arab Emirates
Tel: +971 4811 8100

Natural Gas Technologies

Emerson Process Management Regulator Technologies, Inc.

USA - Headquarters
McKinney, Texas 75069-1872, USA
Tel: +1 800 558 5853
Outside U.S. +1 972 548 3574

Asia-Pacific
Singapore 128461, Singapore
Tel: +65 6770 8337

Europe
Bologna 40013, Italy
Tel: +39 051 419 0611
Chartres 28008, France
Tel: +33 2 37 33 47 00

TESCOM

Emerson Process Management Tescom Corporation

USA - Headquarters
Elk River, Minnesota 55330-2445, USA
Tels: +1 763 241 3238
+1 800 447 1250

Europe
Selmsdorf 23923, Germany
Tel: +49 38823 31 287

Asia-Pacific
Shanghai 201206, China
Tel: +86 21 2892 9499

For further information visit www.fisherregulators.com

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 Process Management.

The contents of this publication are presented for informational purposes only, and while every 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. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson Process Management 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 product remains solely with the purchaser.