

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: 670 Series Instruction Manual, D200109X012.

PED/PE(S)R Categories

This product may be used as a safety accessory with pressure equipment in the following categories. It may also be used outside of these Directives using Sound Engineering Practice (SEP) per table below. For information on the current PED/PE(S)R revision, see Bulletin: [D103053X012](#).

PRODUCT SIZE	CATEGORIES	FLUID TYPE
1/4 NPT	SEP	1

Specifications

Description (Regulator Type Number)

See Table 1

Pressure Ratings⁽¹⁾

See Table 1

Proof Test Pressure

All Pressure Retaining Components have been proof tested per Pressure Equipment Directive and Pressure Equipment (Safety) Regulation.

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.

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 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.

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

670 Series

Table 1. Type Number Description

TYPE	NUMBER OF GAUGE	DESCRIPTION	REGULATOR TYPE NUMBER	MAXIMUM INLET PRESSURE		MAXIMUM OUTLET PRESSURE		MAXIMUM EMERGENCY OUTLET PRESSURE	
				bar	psig	bar	psig	bar	psig
670	1	Basic 1-gauge panel	67CR	17.2	250	6.9	100	7.6	110
670F	1	1-gauge panel; regulator has filter	67CFR						
670FG	2	2-gauge panel; regulator has filter	67CFR						
670FGV	2	2-gauge panel with 3-way changeover valve; regulator has filter	67CFR	3.5	50	3.5	50	3.8	55
670G	2	Basic 2-gauge panel	67CR	17.2	250	6.9	100	7.6	110
670GV	2	2-gauge panel with 3-way or 4-way changeover valve	67CR	3.5	50	3.5	50	3.8	55
671	1	Basic 1-gauge panel	912N	17.2	250	0.35	5	0.69	10
675	2	Basic 2-gauge panel	67CR	17.2	250	6.9	100	7.6	110

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)

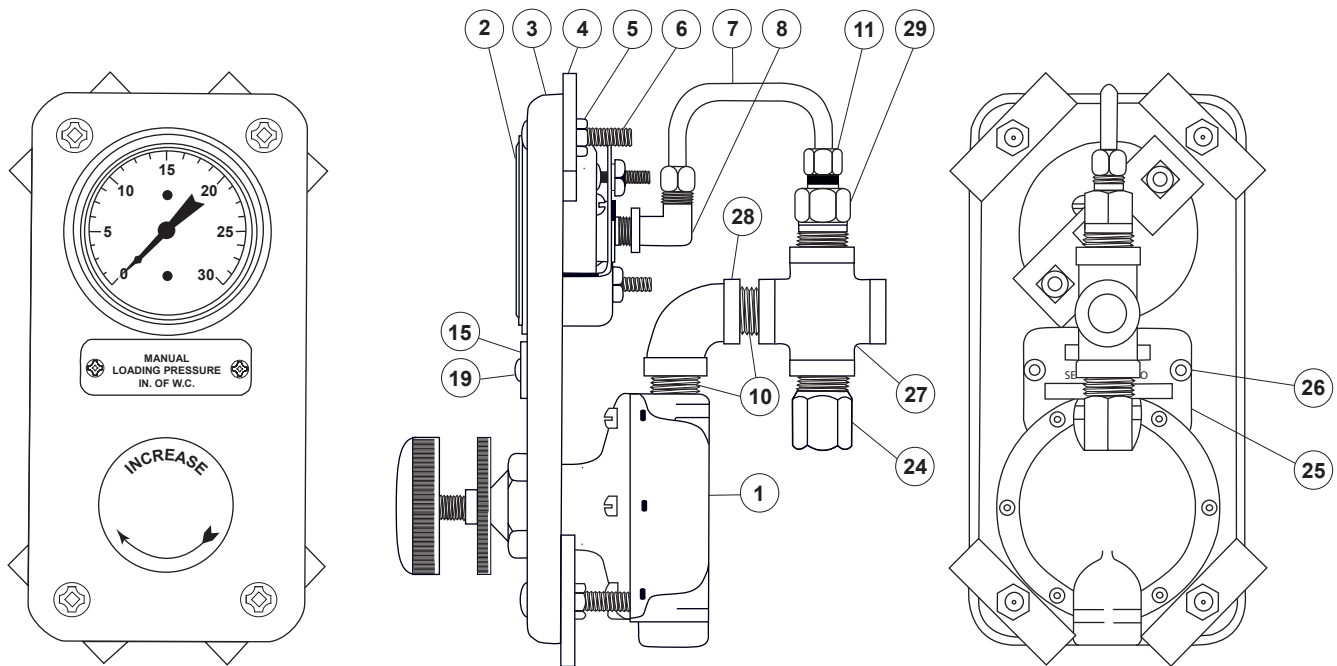


WARNING

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

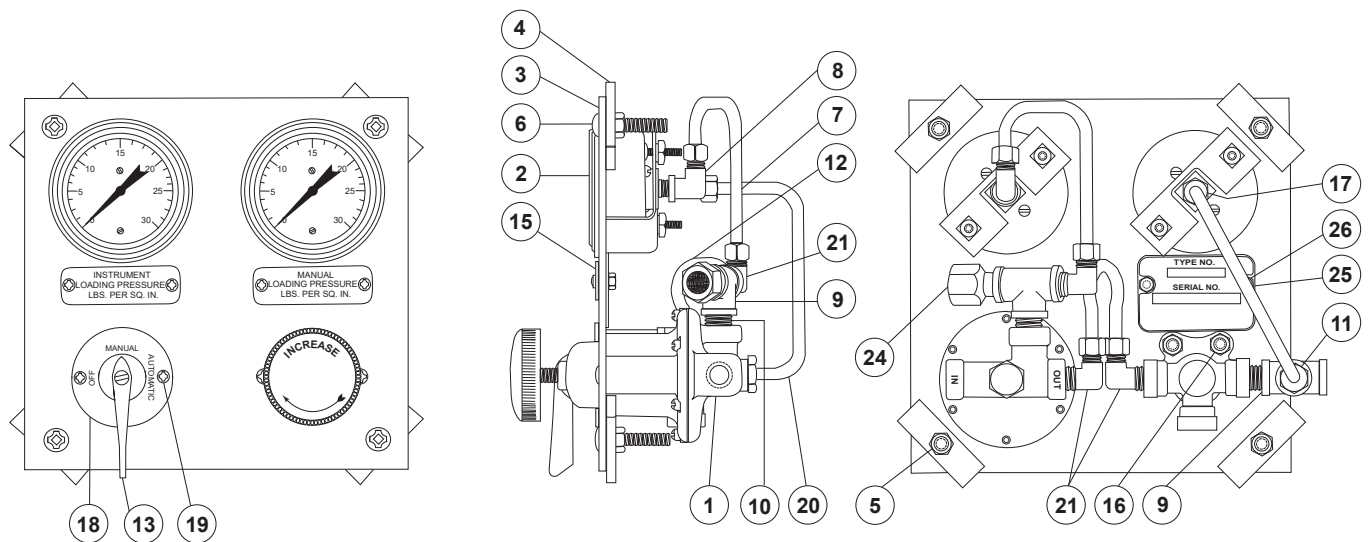
Parts List

Key	Description
1	Regulator
2	Gauge
3	Panel
4	Clamp Bar
5	Hex Nut
6	Machine Screw
7	Tubing
8	Fitting
9	Fitting
10	Nipple
11	Fitting
12	Tubing
13	Changeover Valve
15	Gauge Service Marking
16	Machine Screw
17	Fitting
18	Valve Dial
19	Machine Screw
20	Tubing
23	Support Post
24	Bleed Orifice and Screen Assembly
25	Serial Plate
26	Hex Nut
27	Fitting
28	Fitting
33	Mounting Post (not shown)



30A6617-B

Figure 1. Type 671 Regulator Assemblies



DC2668-D
A1728-1

Figure 2. Type 670GV Regulator Assemblies

670 Series

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For further information on the current PED/PE(S)R revision see Bulletin: D103053X012 or scan the QR code.

