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: 1305 Series Instruction Manual, D100342X012.

PED Categories

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	CATEGORIES	FLUID TYPE
DN 25 / NPS 1	SEP	1

Specifications

Body Sizes and End Connection Style

Type 1305C: DN 25 / 1 NPT inlet and DN 8 / 1/4 NPT outlet connections; 2 mm / 5/64-inch orifice diameter. Three springs provide 0 to 15.5 bar / 0 to 225 psig reduced pressure ranges.

Type 1305D: same as 1305C, with larger spring case and one heavy spring for reduced pressure range of 13.8 / 34.5 bar / 200 to 500 psig.

Piping Connections

Inlet: 1 NPT

Outlet: 1/4 NPT

Maximum Emergency Outlet (Casing) Pressure(1)

Type 1305C: 17.2 bar / 250 psig

Type 1305D: 37.9 bar / 550 psig

Outlet Pressure Ranges

Type 1305C

With Spring 1D387227022 (Blue):
0 to 5.2 bar / 0 to 75 psig
With Spring 1B788527022 (Unpainted):
0 to 10.3 bar / 0 to 150 psig
With Spring 1D465127142 (Red):
0 to 15.5 bar / 0 to 225 psig

Type 1305D: 13.8 to 34.5 bar / 200 to 500 psig

Maximum Allowable Inlet Pressue(1)

276 bar / 4000 psig

Proof Test Pressure

All Pressure Retaining Components have been proof tested per Directive. Operative Ambient

Temperature Capabilities(1)

-29 to 93°C / -20 to 200°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.

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 or any applicable code limitations should not be exceeded.

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.

Regular 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 set 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.

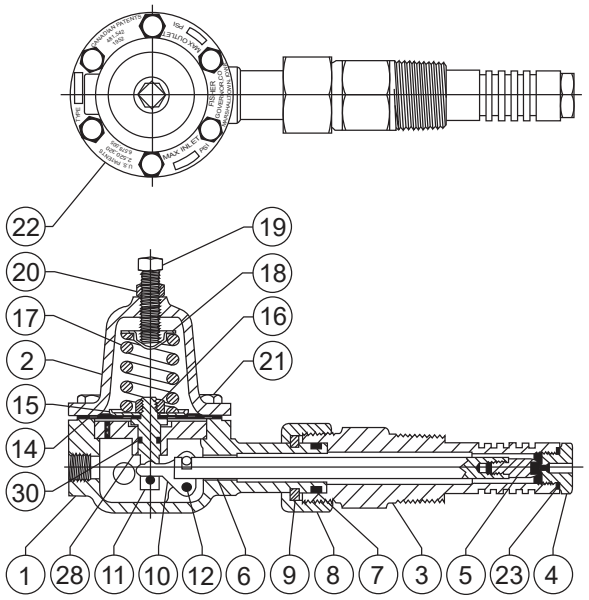

Figure 1. *1305 Series Regulator*

Parts List

Key	Description	Key	Description	Key	Description
1	Lower Casing	10B	Valve Lever Pin	18	Upper Spring Seat
2	Spring Case	11	Pusher Post Assembly	19	Set Screw
3	Inlet Adaptor	11A	Pusher Post	20	Hex Nut
4*	Orifice	11B	Roll Pin	21	Machine Screw
5*	Valve Disk Assembly	12	Lever Support Pin	22	Nameplate
6	Valve Stem	13*	O-ring	23*	O-ring
7*	O-ring	14*	Diaphragm	24	Pipe Plug
8	Union Nut	15	Diaphragm Head	27	Vent Screen
9	Split Ring	16	Hex Nut	29	Machine Screw
10	Valve Lever Assembly	17	Spring	30*	O-ring
10A	Valve Lever				

*Recommended Spare Parts

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For further information on the current PED revision see Bulletin: *D103053X012* or scan the QR code.

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