English - November 2016

Introduction

This installation guide provides instructions for installation, startup and adjustment. To receive a copy of the instruction manual, contact your local Fisher Sales Office or Sales Representative or view a copy at www.fisher.com. For further information, refer to Type Y692 Instruction Manual, D102031X012.

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: <u>D103053X012</u>.

PRODUCT SIZE	CATEGORY	FLUID TYPE
DN 40 and 50 / 1-1/2 and 2 in.	I	1

Specifications

Maximum Inlet and Outlet Pressures(1)

10.4 bar / 150 psig and 1.0 bar / 15 psig

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)

Light Spring Assembly: 2 to 7 bar / 1 to 3 in. w.c., 7 to 26 mbar / 3 to 11 in. w.c., 16 to 86 mbar / 6.5 in. w.c. to 1.2 psig, 0.05 to 0.1 bar / 0.7 to 2 psig and 0.07 to 0.2 bar / 1 to 3.2 psig **Heavy Spring Assembly:** 0.1 to 0.4 bar / 2 to 5.5 psig and 0.3 to 0.5 bar / 4 to 7 psig

Maximum Operating Outlet Pressure to Avoid Internal Part Damage⁽¹⁾

0.21 bar / 3 psig above outlet pressure setting

Temperature Capabilities(1)

Nitrile (NBR): -29 to 82° C / -20 to 180° F Fluoroelastomer (FKM): 5 to 149° C / 40 to 300° 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 pressurerelieving 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 male 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.

For proper operation, the regulator must be installed with the spring case barrel pointed down.

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.





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

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.

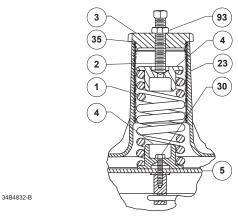


Figure 1. Type Y692 with a Heavy Control Spring Assembly

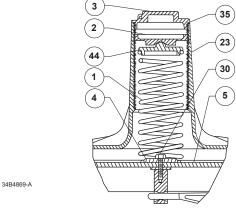


Figure 2. Type Y692 with a Light Control Spring Assembly

Description Description Control Spring 23 Spring Case Adjusting Screw Disk Assembly 25 27 3 Closing Cap Orifice Body 4 Control Spring Seat 28 Pipe Plug 5 Diaphragm and Plate Assy 29 Diaphragm Cap Screw 6 30 Lower Diaphragm Plate Closing Cap Gasket Upper Spring Seat Diaphragm Plate Gasket 35 8 **Pusher Post** 44 Valve Disk Washer 9 Lever Assembly 46 Machine Screw 47 Machine Screw 11 50 Nameplate 13 Stem Drive Screws (4 required) Cotter Pin 51 14 Vent Assembly **Body Gasket** 56 16 Split Ring 17 71 Bushing 74 Pitot Tube 19 Union Nut

Hex Nut

Parts List

20

Lower Casing

Diaphragm Case Cap Screw

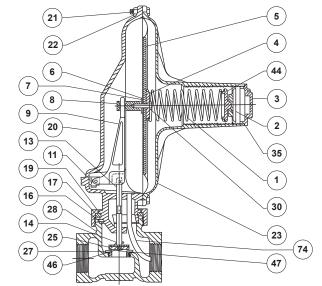


Figure 3. Type Y692 Regulator

Webadmin.Regulators@emerson.com Fisher.com Fisher.com Fisher.com Twitter.com/emr_automation

Emerson Automation Solutions

Americas

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

Europe

Bologna 40013, Italy T +39 051 419 0611

Asia Pacific

Singapore 128461, Singapore T +65 6777 8211

Middle East and Africa

Dubai, United Arab Emirates T +971 4 811 8100



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

D102031X014 © 2001, 2021 Emerson Process Management Regulator Technologies, Inc. All rights reserved. 10/21.

The Emerson logo is a trademark and service mark of Emerson Electric Co.

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 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. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such 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.

