

English - March 2009

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: Type H800 Instruction Manual, D100405X012.

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	CATEGORY	FLUID TYPE
1/4 NPT	SEP	1

Specifications

Body Size and End Connection Style

1/4 NPT (internal)

Vent Connection

1/2 NPT (internal)

Maximum Allowable Inlet (Relief) Pressure⁽¹⁾

17.2 bar / 250 psig

Outlet Pressure Ranges

Non-adjustable, start-to-discharge between
2.7 and 3.0 bar / 9 and 44 psig

Reseat Pressure⁽¹⁾

2.4 bar / 35 psig or higher

Wide-Open Flow Coefficients for Relief Valve Sizing

C_g : 55

IEC Sizing Coefficients

X_T : 0.775

F_D : 0.50

F_L : 0.89

Proof Test Pressure

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

Temperature Capabilities⁽¹⁾

-29 to 66°C / -20 to 150°F

Installation



WARNING

Only qualified personnel should install or service a relief valve. Relief valves should be installed, operated and maintained in accordance with international and applicable codes and regulations and Emerson Process Management Regulator Technologies Inc. instructions.

If using a relief valve on a hazardous or flammable fluid service, personal injury and property damage could occur due to fire or explosion of vented fluid that may have accumulated. To prevent such injury or damage, provide piping or tubing to vent the fluid to a safe, well-ventilated area or containment vessel.

Also, when venting a hazardous fluid, the piping or tubing should be located far enough away from any buildings or windows so to not create a further hazard and the vent opening should be protected against anything that could clog it.

Personal injury, equipment damage or leakage due to escaping fluid or bursting of pressure-containing parts may result if this relief valve 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 relief valve could result in personal injury and property damage due to escaping fluid. To avoid such injury and damage, install the relief valve in a safe location.

Clean out all pipelines before installation of the relief valve and check to be sure the relief valve 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 relief valve 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 relief valve be installed so that the vent hole in the spring case is unobstructed at all times. For outdoor installations, the relief valve 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 relief valve beneath eaves or downspouts and be sure it is above the probable snow level.

Overpressure

Maximum inlet pressures depend upon body materials and temperatures. Refer to the nameplate for the maximum inlet pressure of the valve. The valve should be inspected for damage after any overpressure condition. **Fisher™ relief valves are NOT ASME safety relief valves.**

Startup

The relief valve is factory set. With proper installation completed and relief valves properly adjusted, slowly open the upstream and downstream shutoff valves (if applicable).

Adjustment

Relief valves are precisely set by the manufacturer for the correct start-to-discharge setting and field repair should never be attempted.

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

Type H800

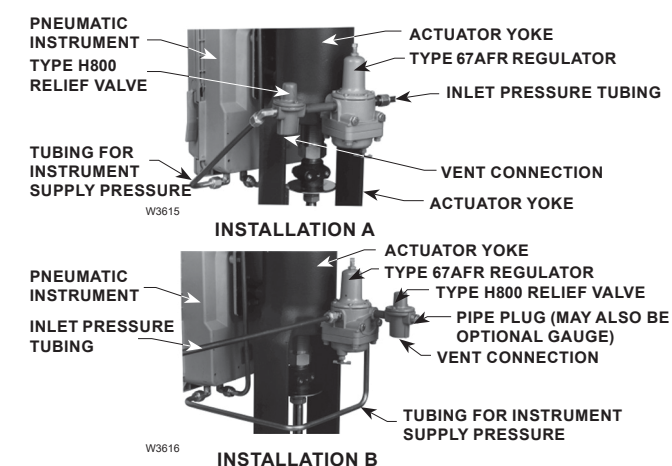


Figure 1. Typical Installation Orientations

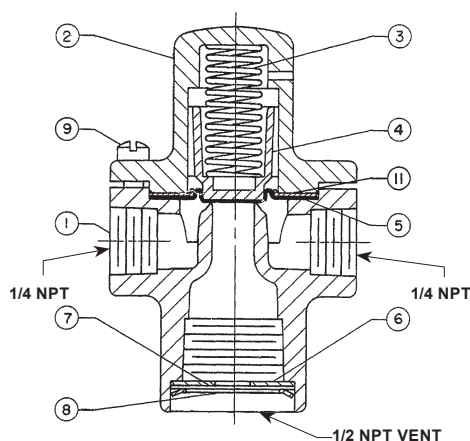


Figure 2. Type H800 Relief Valve Assembly

Table 1. Maximum Allowable Inlet Pressure to 67 Series Regulators (with Type H800 Relief Valve) to Prevent Instrument Supply Pressure from Exceeding 3.4 bar / 50 psig

TYPE H800 INSTALLATION FROM FIGURE 2	SUPPLY PRESSURE REGULATOR TYPE	REMOTE VENT PIPING ⁽¹⁾	MAXIMUM ALLOWABLE INLET PRESSURE TO SUPPLY PRESSURE REGULATOR	
			bar	psig
A	67, 67R, 67F, 67FR, 67CF or 67CFR	Yes	17.2	250
		No		
B	67, 67R, 67CF or 67CFR	Yes	6.9	100
		No	17.2	250
	67FR or 67F	Yes	6.9	100
		No	13.8	200

1. Limit vent piping to 9.14 equivalent meters / 30 equivalent feet of 13 mm / 1/2 in. piping. Lower vent piping may reduce the maximum allowable inlet pressure to supply pressure regulator.

Taking Out of Service (Shutdown)



WARNING

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

Parts List

Key	Description	Key	Description
1	Relief Valve Body	7	Screen
2	Spring Case	8	Internal Retaining Ring
3	Spring	9	Machine Screw
4*	Spring Cap	10	Pipe Nipple (not shown), for use in Installation B
5*	Diaphragm	11	Diaphragm Disk
6	Disk Restriction		

*Recommended spare part.

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

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