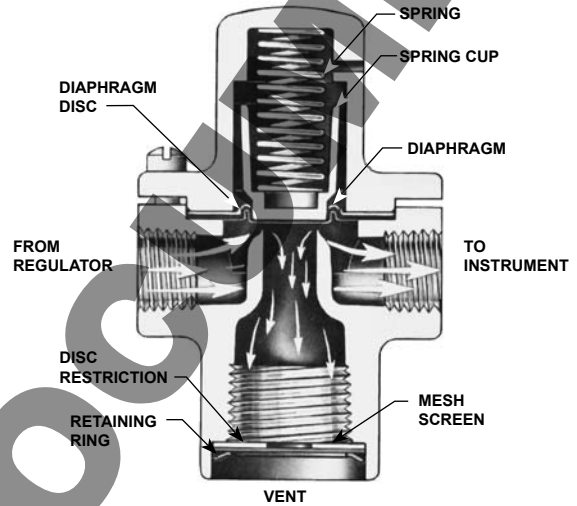


Type H800 Relief Valve



W3618

Figure 1. Exterior View of Type H800 Relief Valve



INSTRUMENT SUPPLY FLOWS THROUGH;
DIAPHRAGM LIFTS ONLY TO VENT OVERPRESSURE

W3617-1*

Figure 2. Sectional View of Type H800 Relief Valve

Introduction

The Type H800 relief valve^{(1)*} (Figures 1 and 2) is a compact, lightweight, self-operated relief valve. It is used primarily between a pneumatic instrument and its supply pressure regulator to limit the instrument supply pressure to 50 psig (3,4 bar) should the supply pressure regulator fail open. The Type H800 relief valve can also be mounted on other equipment, such as an air compressor, where limited relief is desired.

Features

- **Application Dependability**—Type H800 relief valve is specifically designed to keep instrument on line in case of supply overpressure.

- **Easy Installation**—Small size allows easy handling. End connections of relief valve match those normally found on pneumatic instruments and supply pressure regulator, allowing quick, convenient installation.
- **Economical**—Flow-through construction eliminates need for a pipe tee, reducing installation costs.
- **Tamper-Resistant**—Relief valve has a fixed set point; spring case has no adjusting screw. Thus, relief set pressure cannot be altered.

* Relief valve defined in ANSI standard B95.1-1972. Not all codes or regulations permit these valves to be used as final overpressure protection devices.



Bulletin 71.4:H800

Specifications

End Connections

1/4-inch NPT

Vent Connection

1/2-inch NPT

Maximum Allowable Inlet (Relief) Pressure*

250 psig (17,2 bar)

Relief Pressure Range*

Non-adjustable, start-to-discharge between 39 and 44 psig (2,7 and 3,0 bar)

Reseat Pressure*

35 psig (2,41 bar) or higher

Relief Performance

For Type H800 Only: See Figure 3

For Type H800 Used With 67 Series Supply Pressure Regulator:

Table 1 lists maximum allowable inlet pressures to 67 Series regulator (with Type H800) to prevent instrument supply pressure from exceeding 50 psig (3,45 bar)

Flow Capacity

See Figure 3

Flow Coefficient

Wide-Open C_g : 55

K_m : 0.79

Construction Materials

Body and Spring Case: Aluminum

Spring Cap: Valox® 730† plastic

Diaphragm: Nitrile (NBR)

Diaphragm Disk: Zinc-plated steel

Spring: Plated steel

Disk Restriction and Screen: Stainless steel

Internal Retaining Ring: Plated steel

Temperature Capabilities*

-20 to 150°F (-29 to 66°C)

Approximate Weight

5 ounces (140 grams)

*The pressure/temperature limits in this bulletin or any applicable code limitations should not be exceeded.

†Trademark of General Electric Co.

Table 1. Maximum Allowable Inlet Pressures to 67 Series Regulators (With Type H800 Relief Valve) to Prevent Instrument Supply Pressure from Exceeding 50 psig (3,4 bar)

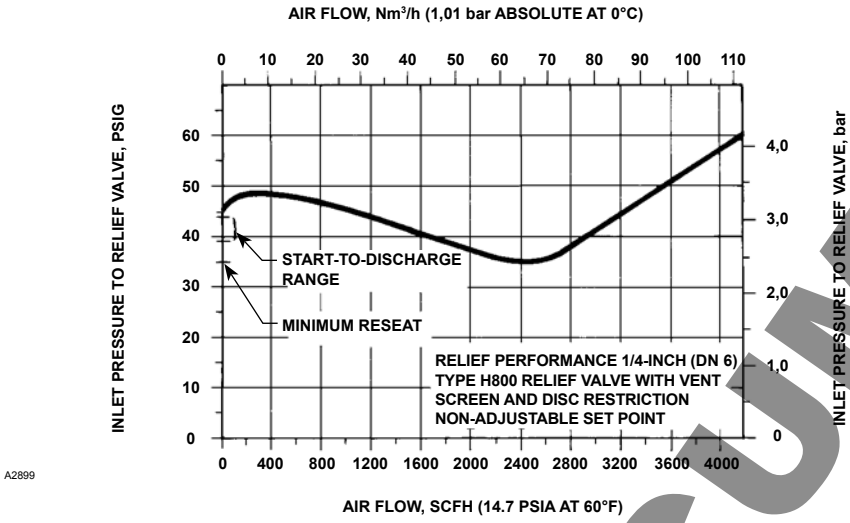
TYPE H800 INSTALLATIONS FROM FIGURE 4	SUPPLY PRESSURE REGULATOR TYPES	REMOTE VENT PIPING*	MAXIMUM ALLOWABLE INLET PRESSURE TO SUPPLY PRESSURE REGULATOR	
			Psig	bar
A	67, 67R, 67F, 67FR, 67AF, or 67AFR	With*	250	17,2
		Without		
B	67, 67R, 67AF, or 67AFR	With*	100	6,90
		Without	250	17,2
	67FR or 67F	With*	100	6,90
		Without	200	13,8

*For up to 30 equivalent feet (9,14 equivalent meters) of 1/2-inch (12,7 mm) piping.

Installation

Typical installations of the Type H800 relief valve are shown in Figure 4. Installation A is recommended for optimum performance. Installation B requires that a pipe plug or gauge be threaded into one side 1/4-inch threaded connection as shown in Figure 4. If remote

vent piping is required, install piping or tubing in the 1/2-inch NPT vent connection. The vent piping should be as short and have as few elbows as practical. It should be 1/2-inch (12,7 mm) in diameter to avoid the effects of backpressure buildup on relief performance, and should have a screened vent installed at the open end.



A2899

Figure 3. Relief Capacity

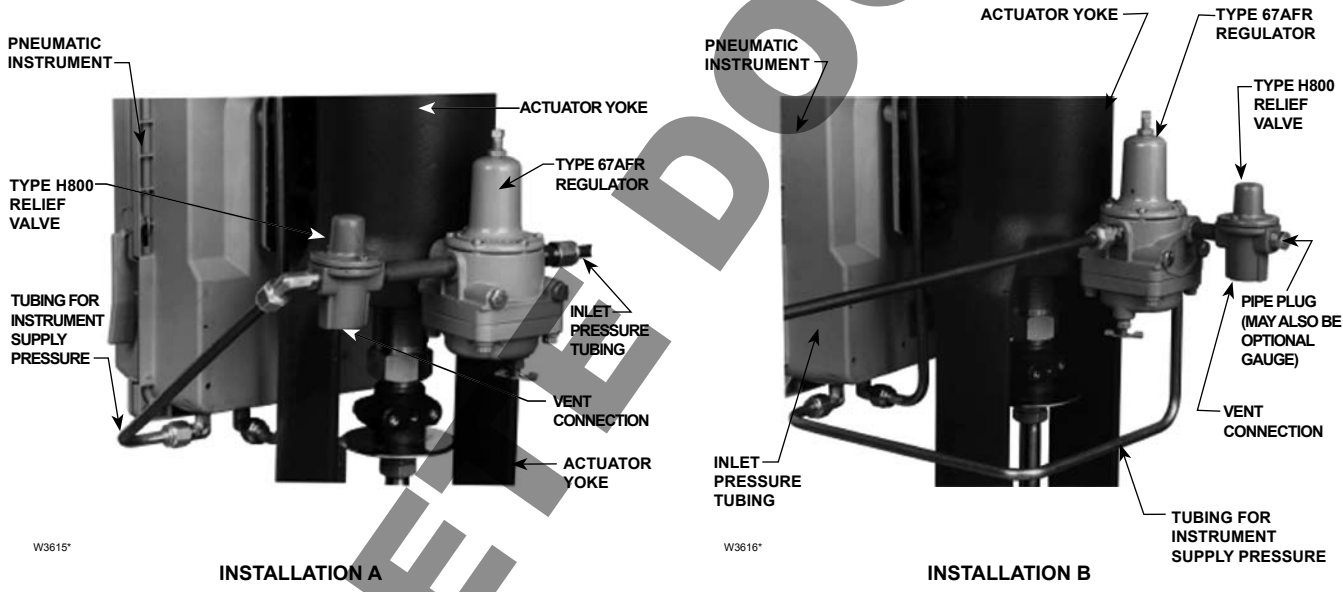


Figure 4. Typical Installations

The relief valve should be oriented so that hazardous or flammable gas discharged from the valve does not create a fire, toxic, or explosion hazard. Remote vent piping or tubing should be located far enough away from any buildings or windows to avoid creating a further hazard. The relief valve should be protected from material and conditions that could clog either the spring case vent or the screened end of the vent connection or the remote vent piping.

Relief valve dimensions are shown in Figure 5.

The relief valve and its installation should be checked for compliance with all applicable codes.

Ordering Information

When ordering, specify a Type H800 relief valve. Also specify the installation style and the type and temperature of the gas to be used.

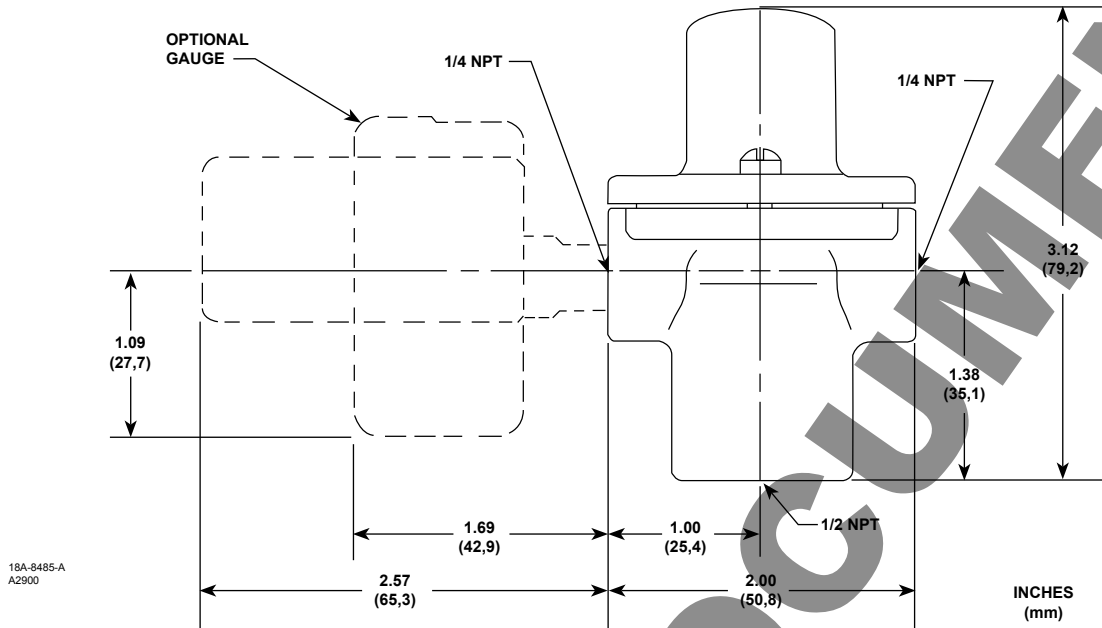


Figure 5. Dimensions

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