# Types H733 and H833 Internal Relief Valves

## Introduction

This datasheet provides specifications and parts list for the variants of the Fisher™ Type H833 Relief Valve including the UL® listed Types H733-250 and H733-265. Refer to the Type H733/H833 Instruction Manual, D450335T012, for information on how to properly install, maintain and test the relief valve.

## Product Description

Types H733 and H833 relief valves are used for a variety of compressed gases in mobile applications. The Type H733 is UL® listed for Propane and often used with Anhydrous Ammonia ($NH_3$). The valves are typically installed in ASME tanks and Department of Transportation (DOT) cargo tanks (see Figure 1). Contact the factory regarding selection of compatible sealing materials. ASME setpoints and flow capacities are available and all units are provided with serial numbers.

## Specifications

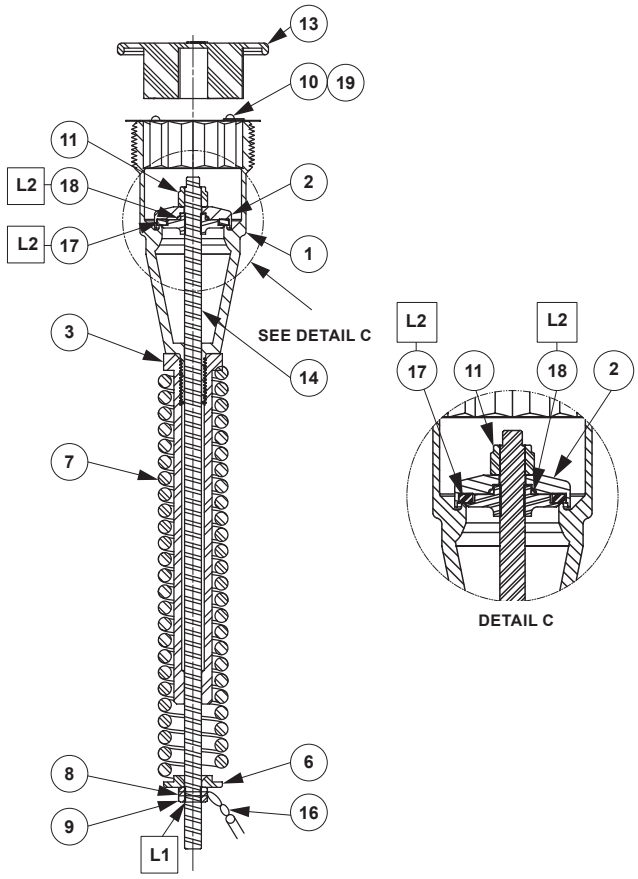
**Body Size, Tank Connection**
3 NPT Male

**Maximum Inlet Pressure (Body Rating)(1)**
480 psig / 33.1 bar

**Rain Cap and Installation Tool**
Type P298 Rain Cap;
Type P305 (2-1/2 in. / 64 mm Hex bar) Wrench

**Start-to-discharge Pressure and Spring Range**
100 to 400 psig / 6.9 to 27.6 bar

**Approximate Unit Weight**
7.5 lbs / 3 kg




ERAA00684

☐ APPLY DOW CORNING® 111 LUBE AND SEALANT(2)
L1 = MULTI-PURPOSE PTFE LUBRICANT
L2 = SILICONE LUBRICANT

***Figure 1**. Type H733/H833 Relief Valve*

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1. The pressure/temperature limits in this Datasheet and any applicable standard or code limitation should not be exceeded.
2. Lubricant/Sealants must be selected such that they meet the temperature requirements.

## Parts List

| KEY | DESCRIPTION | MATERIAL | PART NUMBER |
|---|---|---|---|
| 1 | Body | ASME SA351 CF8M | T21135T0012 |
| 2 | Annealed Top Disc | ASME SA479 S30400 | ERAA00678A0 |
| 3 | Guide Bushing | 304 Stainless Steel | ERAA14941A0 |
| 6 | Annealed Spring Seat | ASME SA479 S30400 | T12669T0022 |
| 7 | Spring (Model Type and Set Point Range) | | |
| | (-1) 100 to 150 psig / 6.9 to 10.3 barg | 17-7PH Stainless Steel | GE00925T012 |
| | (-2) 151 to 200 psig / 10.4 to 13.8 barg | 17-7PH Stainless Steel | GE00978T012 |
| | (-3) 201 to 275 psig / 13.9 to 19.0 barg | 302 Stainless Steel | ERAA00950A0 |
| | (-4) 276 to 330 psig / 19.0 to 22.8 barg | 17-7PH Stainless Steel | GE00929T012 |
| | (-5) 331 to 400 psig / 22.8 to 27.6 barg | 17-7PH Stainless Steel | GE00930T012 |
| 8 | Hex Nut | 316 Stainless Steel | T1208735252 |
| 9 | Passivated Roll Pin | S42000 AISI | 1H483928992 |
| 10 | Drive Screw | 18-8 Stainless Steel | 1A6767X0012 |
| 11 | Lock Nut | Stainless Steel | 1D5309X0052 |
| 13 | Rain Cap | Ethylenepropylene (EPDM) | T40635T0012 |
| 14 | Bottom Disc/Stem Weld Assembly | | |
| 14A | Annealed Stem | ASME SA479 S30400 | ERAA01041A0 |
| 14B | Annealed Bottom Disc | ASME SA479 S30400 | ERAA01041A0 |

| KEY | DESCRIPTION | MATERIAL | PART NUMBER |
|---|---|---|---|
| 16 | Seal and Wire | Lead Seal and 304 Stainless Steel Wire | 1D884799012 |
| 17 | Main Seal (Model Type) | | |
| | H733-250, H733-265, H833-* | Nitrile (NBR) | ERAA00675A0 |
| | H833V-* | Fluorocarbon (FKM) | ERAA00675A1 |
| | H833E-* | Ethylenepropylene (EPDM) | ERAA00675A2 |
| | H833N-* | Neoprene (CR) | ERAA00675A4 |
| | H833K-* | Perfluroelastomer (FFKM) | ERAA00675A3 |
| 18 | O-ring (Model Type) | | |
| | H733-250, H733-265, H833-* | Nitrile (NBR) | ERAA00671A0 |
| | H833V-* | Fluorocarbon (FKM) | ERAA00671A1 |
| | H833E-* | Ethylenepropylene (EPDM) | ERAA00671A2 |
| | H833N-* | Neoprene (CR) | ERAA00671A4 |
| | H833K-* | Perfluroelastomer (FFKM) | ERAA00671A3 |
| 21 | Lube and Sealant | Dow Corning® 111 | 1M528206992 |

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* Denotes variable between 1 to 5 that corresponds to spring range (see key 7).

Webadmin.Regulators@emerson.com
Fisher.com
Facebook.com/EmersonAutomationSolutions
LinkedIn.com/emerson-final-control
X.com/EMR_automation

**Emerson**

**Americas**
McKinney, Texas 75069 USA
T +1 800 558 5853
+1 972 548 3574

**Asia Pacific**
Singapore 128461, Singapore
T +65 6777 8211

**Europe**
Bologna 40013, Italy
T +39 051 419 0611

**Middle East and Africa**
Dubai, United Arab Emirates
T +971 4 811 8100



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