



# Direct Acting Pressure Relief Valve/ Fire Pump Casing Relief Valve

## Model FP- 3HC-0

The BERMAD model FP- 3HC-0 is a direct acting, spring loaded, diaphragm type, relief valve.

The single port is held closed by the force of the adjustable spring located above the pressure sensing diaphragm. When the force of the pressure sensed under the diaphragm exceeds the force of the spring the valve will open to relieve pressure and will close tight when pressure falls below the pre-set value.

This FM approved valve is well suited for use in protecting wet pipe systems from overpressure that occurs from temperature fluctuations and for fire pump casing relief as required by the NFPA 20 and NFPA 13 standards.



(for Illustration Only)

### Features

- Tight closing with accurate pressure control
- Fast immediate response to pressure rise
- Easy in-field pressure setting adjustment
- FM Approved
- Available in corrosion resistant materials
- Tamperproof cap

### Typical Applications

- Pressurized sprinkler systems
- Fusible plug pilot lines
- Thermal release for wet piping systems
- Pressure relief for pressure control valves
- Fire pump casing relief
- Jockey pump overpressure

### Technical Data

- **Process connections:** ½" NPT or ¾" ISO-7 Rp
- **Pressure Rating:** 25 bar (365psi)
- **Working temperature:** Water up to 80°C (180°F)
- **Pressure gauge connection:** ¼" NPT (F)

### Standard Materials

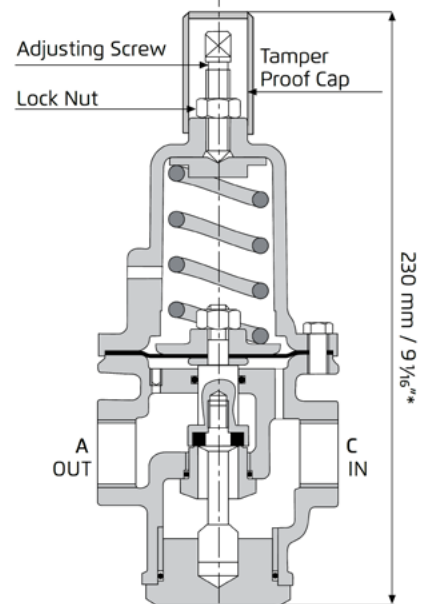
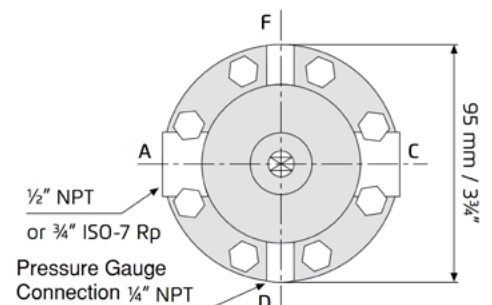
- **Body:** Stainless steel
- **Cover and lower plug:** Brass
- **Elastomers:** NBR
- **Internals:** Stainless Steel & Brass
- **Spring:** Galvanized

### Optional Materials

- All Stainless Steel 316, CF8M Body
- Nickel Aluminum Bronze ASTM B148 C95800
- Super Duplex S.S.

### Setting Range and Adjustment

Model	Pressure		In field adjustment
	bar	psi	1 Turn of adjusting screw = approx
FP-3HC-0-16	1-16	15-235	2.2 bar/31.3 psi
FP-3HC-0-30	7-25	100-365	1.8 bar/25.7 psi



**Weight: 3.4 Kg / 7.5 lbs.**

\* High pressure setting kit add 128 mm (5") to pilot height





## Typical Installations

The BERMAD FP- 3HC direct pressure relief valve will accurately relieve pressure above a pre-set value and will seal drip tight when the pressure is below the pre-set value.

Typical installations of the BERMAD FP- 3HC include use as a pump casing circulation relief valve to prevent pump overheating at churn, zero flow or shut off conditions, pressure build up prevention from thermal expansion in wet pipe systems and overpressure prevention downstream of pressure control/reducing valves.

(for Illustration Only)



Fire pump casing relief valve for overheating prevention



Sprinkler safety relief valve for wet pipe systems



Pressure relief downstream of pressure control / reducing valves

## Installation

The valve can be installed in any orientation, vertical or horizontal.

Be sure not to install the valve at any low point or at the bottom of the piping, where accumulated debris might enter the valve and hamper correct functioning.

The valve will occasionally open to release over pressure, expelling water to the atmosphere. Where relevant, install piping to direct the expelled water to a preferred drainage point.

NOTE: Model FP 3HC is suitable for minimum flow fire pump applications, typically used as pump casing relief valve. For full-rated fire pump capacity discharge. See

3HC - Inlet Pressure / Discharge Flow Rate to Atmosphere (for a fully opened valve)

