

Fluke-700PRV Pressure Relief Valve Kit

Instruction Sheet

Introduction

The Fluke 700PRV Pressure Relief Valve Kit consists of two adjustable pressure relief valves for the Fluke 700HTP Hydraulic Test Pump. The two valves provide a pressure relief setting range of 50 to 400 bar (725 to 5,800 psi).

The 700HTP pump can develop pressures up to 700 bar (10,150 psi). Application of too much pressure can damage some pressure instruments. The pressure relief valves in this kit provide a way to protect pressure instruments from accidental overpressure. When the applied pressure reaches the relief setting of the valve, the valve opens a channel to release hydraulic fluid pressure back into the hydraulic fluid reservoir.

Specifications

Valve	Preset Value (±10%)	Relief Setting Range
Low Range: PRV12-2-HTP1	94 bar (1360 psi)	50 to 200 bar (725 to 2,900 psi)
High Range: PRV12-3-HTP1	376 bar (5,450 psi)	200 to 400 bar (2,900 to 5,800 psi)

Pressure Connection: 1/4-in BSP male, parallel thread. This mates with the pressure relief valve port on the 700HTP pump.

Pressure Relief Adjustment Method: Multiturn adjustment screw to set preload on disc springs.

Repeatability of relief setting: ±10% of nominal setting

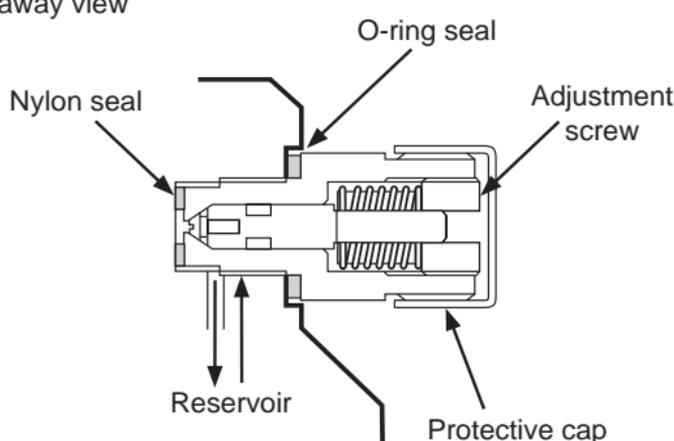
Material: 303 stainless steel

Dimensions (each): 1.57 in by 0.87 in diameter (40 mm by 22 mm diameter)

Weight (each): 2.1 oz (60 g)

Features of the Pressure Relief Valve

Cutaway view



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The adjustment screw is a cylinder, and has a slot for an adjustment tool. The adjustment screw compresses a spring, which determines the relief (cracking) pressure setting.

Hydraulic fluid inlet and outlet ports are machined into the body of the 700HTP pump, and are designed for this valve. When the pressure relief valve is not in use, a threaded plug must be installed in the pump's pressure relief valve port.

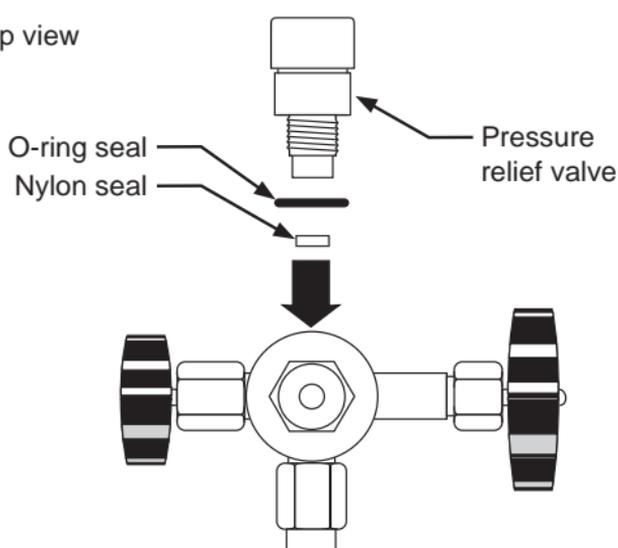
Selecting Which Valve to Use

The following table lists the suggested pressure relief valve for the Fluke Pressure Modules in the 35 bar (500 psi) and higher ranges.

Fluke 700 Series Pressure Module	Suggest Pressure Relief Valve
700P07, 700P08, 700P09	Low range (PRV12-2-HTP1)
700P29, 700P30, 700P31	High range (PRV12-3-HTP1)

Installing a Pressure Relief Valve

Top view



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Install a pressure relief valve as shown in the figure above. Install the nylon seal in the 700HTP pressure relief valve port first, followed by the O-ring and pressure relief valve.

Note

Use only the nylon seal provided, never thread sealing tape, with parallel threads.

Adjusting the Pressure Relief Setting

Set the pressure relief by trial and error. The table under Specifications shows the preset pressure relief settings at time of shipment. To set the pressure relief lower, turn the adjustment screw counter-clockwise  (loosen it). To set the pressure relief higher, turn the adjustment screw clockwise  (tighten it).

How to Contact Fluke

To contact Fluke, call one of the following numbers:

1-800-44-FLUKE (1-800-443-5853) in U.S.A. and Canada

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