

# Parker Series R1E02 Direct Operated Pressure Relief Valve Service Manual

## General Description

Series R1E02 direct operated, pressure relief valves are seated type valves typically used for remote pressure controls. In applications where the reliability and simplicity of a hydraulic remote control are preferred to an electrohydraulic system, Series R1E02 is an ideal solution.

Typically pilot operated pressure valves or compensators of variable pumps are controlled.



Foot Mounting



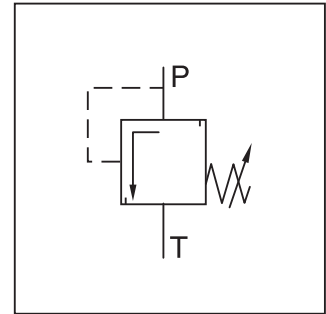
Front Panel Mounting

## Features

- Seated type valve.
- 3 body variants:
  - foot mounting
  - front panel mounting
  - subplate mounting
- 3 pressure ranges.
- 3 adjustment modes:
  - hand knobs
  - acorn nut with lead seal
  - adjusting with lock

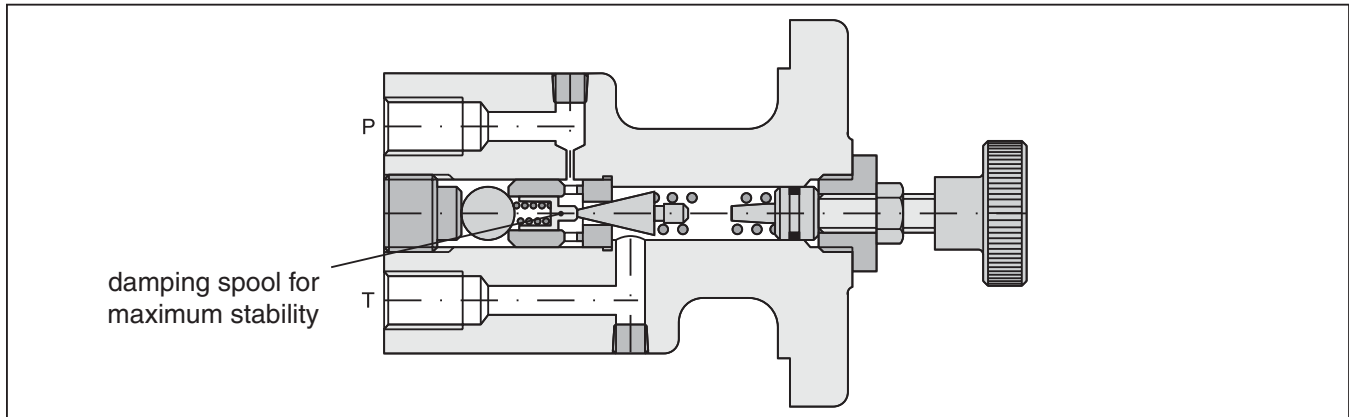


Subplate Mounting

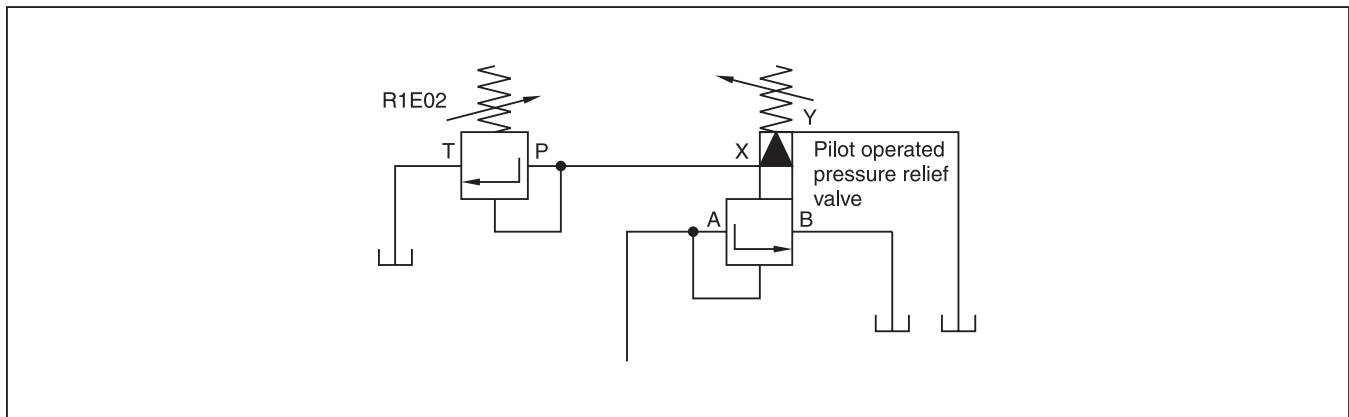


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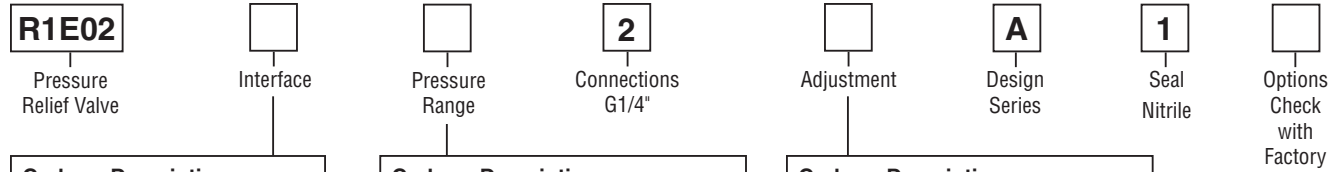
## Front Panel Mounting



## Typical Configuration as Remote Pilot Valve



**Ordering Information**



Code	Description
1	Foot Mounting
2	Front Panel Mounting
3	Subplate Mounting

Code	Description
1	up to 105 Bar (1523 PSI)
3	up to 210 Bar (3045 PSI)
5	up to 350 Bar (5075 PSI)

Code	Description
1	Hand Knob Ø32mm
3	Acorn Nut with Lead Seal
4 *	Adjusting Device with Lock (Key Order No. 700-70619)

**Weight:**  
R1E021 2.1 kg (4.6 lbs.)  
R1E022 2.1 kg (4.6 lbs.)  
R1E023 1.0 kg (2.2 lbs.)

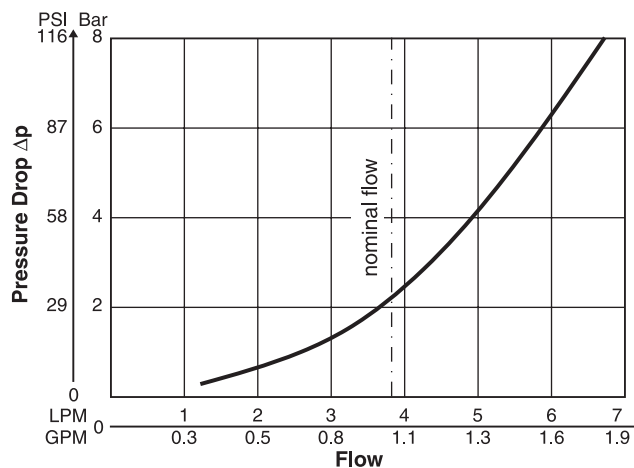
**Seal Kit:**  
R1E021 S26-58466-0  
R1E022 S26-58466-0  
R1E023 S16-91963-0

\* on bodies for subplate mounting use plate S16-64188.

**Specifications**

General	
Size	1/4"
Interface	Foot mounting, Front panel mounting, Subplate mounting
Mounting Position	Unrestricted
Ambient Temperature Range	-20°C to +70°C (-4°F to +158°F)
Hydraulic	
Maximum Operating Pressure	Port P 350 Bar (5075 PSI); Port T depressurized
Pressure Range	105 Bar (1523 PSI), 210 Bar (3045 PSI), 350 Bar (5075 PSI)
Fluid	Hydraulic oil as per DIN 51524 ... 51525
Fluid Temperature	-20°C to +70°C (-4°F to +158°F)
Nominal Flow	3.8 LPM (1.0 GPM)
Minimum Pressure Setting	7 Bar (102 PSI)
Viscosity Permitted	10 to 650 cSt / mm <sup>2</sup> /s (46 to 3013 SSU)
Viscosity Recommended	30 cSt / mm <sup>2</sup> /s (139 SSU)
Filtration	ISO Class 4406 (1999) 18/16/13

**Performance Curve**

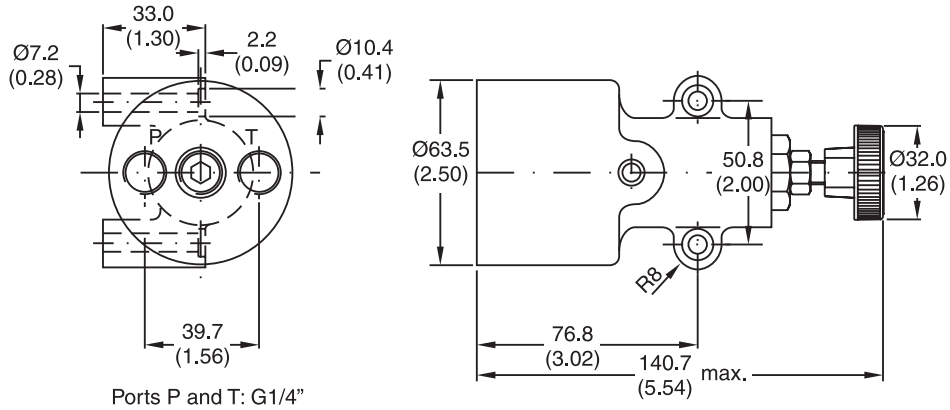
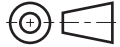


Fluid viscosity 35 cSt at 50°C (122°F) ± 5°C (41°F)



Inch equivalents for millimeter dimensions are shown in (\*\*)

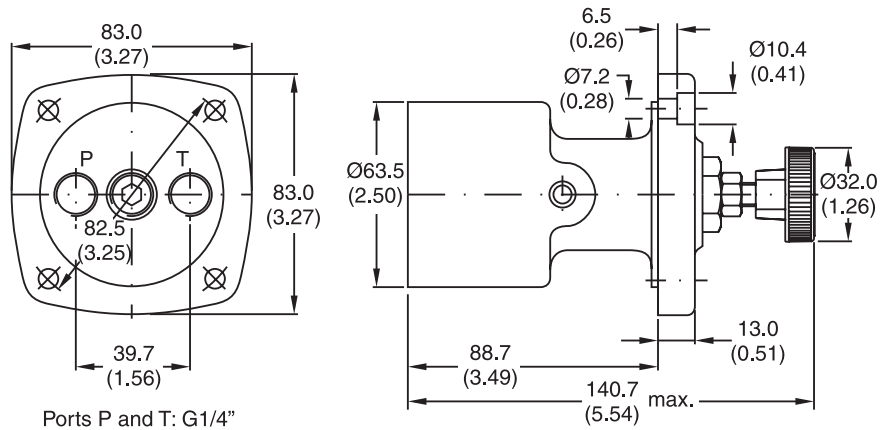
**Foot Mounting**



Ports P and T: G1/4"

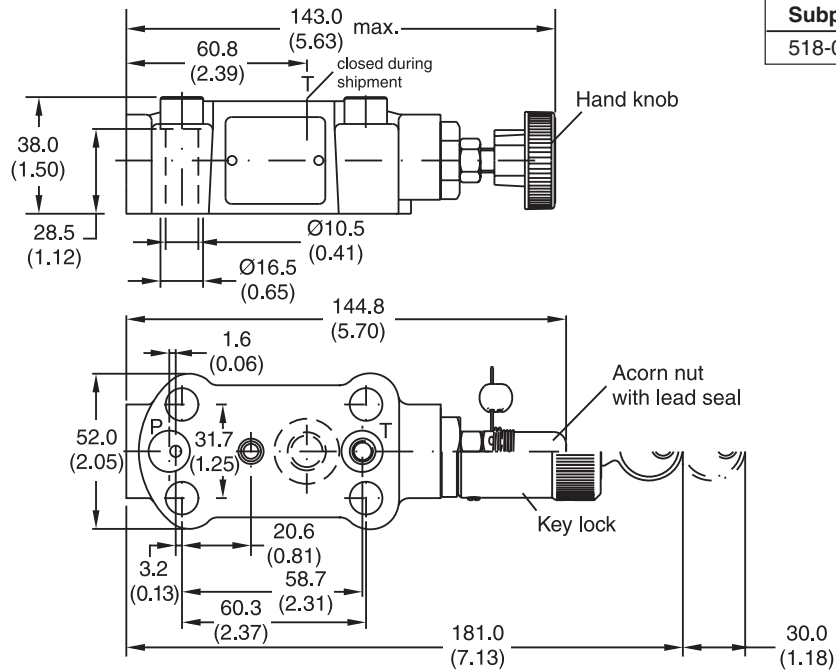
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**Front Panel Mounting**



Ports P and T: G1/4"

**Subplate Mounting**



Subplate	Size
518-00139-0	3/8" NPT