

# LRPIE

Fast-acting Pilot-operated Relief Valve

## DESCRIPTION

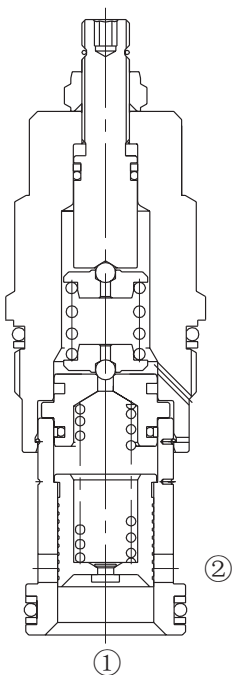
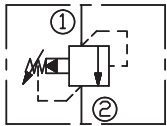
A cartridge-style fast-acting balanced piston relief valve

## OPERATION

The valves are normally closed, pressure-limiting valves used to protect hydraulics components from pressure transients. When the pressure at the inlet (port ①) reaches the valve setting, the valve starts to open to tank (port ②), throttling flow to limit the pressure rise. These valves have low pressure rise vs. flow and are very fast.

Back pressure on the tank port ② is directly additive to the valve setting at a 1:1 ratio.

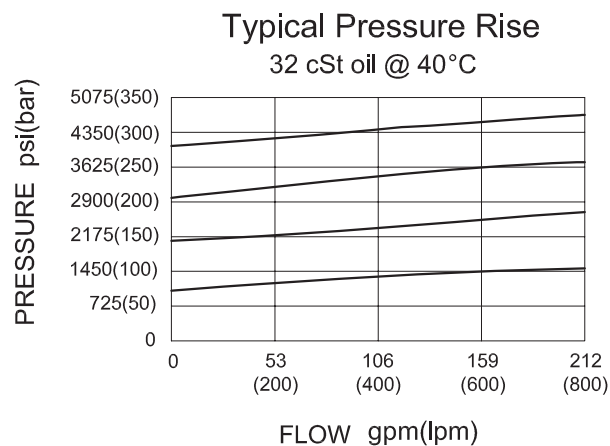
## SYMBOL



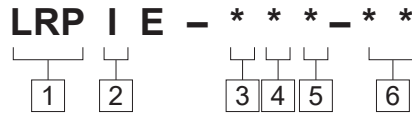
## SPECIFICATIONS

Max. Operating Pressure	350bar
Capacity	380 L/min.
Internal Leakage	50 cc/min. at 70 bar
Response Time- Typical	2 ms
Standard Spring Ranges	A 7 to 210 bar, preset:70bar B 3.5 to 105 bar, preset:70bar C 10.5 to 420 bar, preset:70bar D 1.7 to 55 bar, preset:28bar E 1.7 to 28 bar, preset:14bar W 10.5 to 315 bar, preset:70bar
Temperature	-40°F to +250°F(-40°C to +120°C)
Filtration	See page N-1
Fluids	Mineral-based fluids with viscosities of 7.4 to 420 cSt.
Cavity	SUN T-16A, See page M-8
Housing Material	Steel & Ductile iron rated to 350bar

## PRESSURE DROP VS.FLOW



**TO ORDER**



- 1 Function**  
LRP=Fast-acting  
Pilot-operated Relief Valve

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- 2 Capacity**  
I=380L/min

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- 3 Control**  
L=Standard Screw Adjustment

- 4 Spring Ranges**  
A=100-3000psi(7-210bar)  
Preset:1000psi(70bar)  
B=50-1500psi(3.5-105bar)  
Preset:1000psi(70bar)  
C=150-6000psi(10.5-420bar)  
Preset:1000psi(70bar)  
D=25-800psi(1.7-55bar)  
Preset:400psi(28bar)  
E=25-400psi(1.7-28bar)  
Preset:200psi(14bar)  
W=150-4500psi(10.5-315bar)  
Preset:1000psi(70bar)  
Factory Pressure setting established at 15L/min;

- 5 Seal Kits**  
N= Buna N  
V= Viton

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- 6 Port Size**  
Omit=None  
12T=SAE12  
16T=SAE16  
6G=G 3/4  
8G=G 1

※ See page K-14 for detail of housing  
 ※ Other port sizes are available

**INSTALLATION DIMENSIONS**

Unit=Millimeters

