

LDRF

Direct-acting Relief Valve

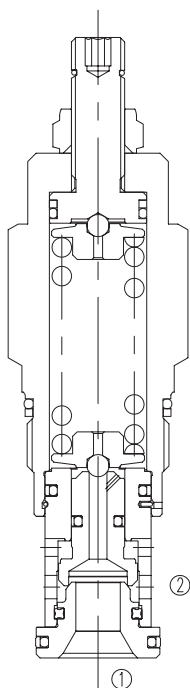
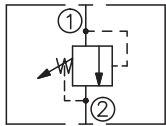
DESCRIPTION

A cartridge-style direct-acting relief valve

OPERATION

The valve is normally closed, pressure-limiting valves used to protect hydraulic 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 are smooth and quiet, essentially zero leak, dirt tolerant, immune to silting and are very fast.

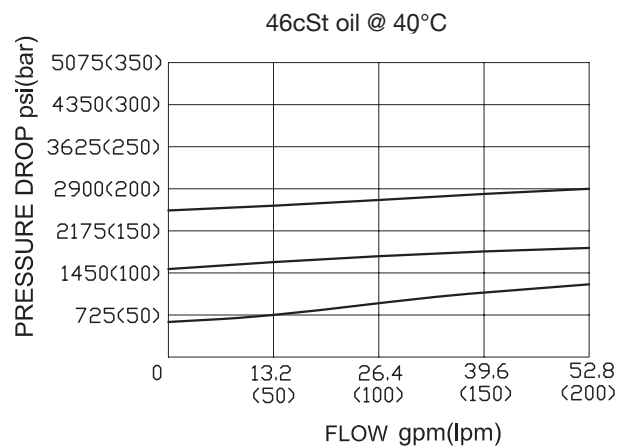
SYMBOL



SPECIFICATIONS

Operating Pressure	350bar
Capacity	See PRESSURE DROP VS.FLOW graph
Maximum valve leakage at reseal	10 drops/min
Reseat Pressure	>80% of setting pressure
Standard Spring Ranges	A 35-210 bar; Preset:70bar B 20-105 bar; Preset:70bar C 70-420 bar; Preset:70bar D 14- 55 bar; Preset:28bar E 7- 28 bar; Preset:14bar W 55-315 bar; Preset:70bar S 3.5- 14 bar; Preset: 7bar
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-3A, See page M-9
Housing Material	Steel & Ductile iron rated to 350bar

PRESSURE DROP VS.FLOW



TO ORDER

LDR F - * * * - * *

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1 Function
LDR=Direct-acting Relief Valve

2 Capacity
F=200L/min

3 Control
L= Standard Screw
Adjustment

4 Spring Ranges
 A=500-3000psi(35-210bar) Preset:1000psi(70bar)
 B=300-1500psi(20-105bar) Preset:1000psi(70bar)
 C=1000-6000psi(70-420bar) Preset:1000psi(70bar)
 D=200-800psi(14-55bar) Preset:400psi(28bar)
 E=100-400psi(7-28bar) Preset:200psi(14bar)
 W=800-4500psi(55-315bar) Preset:1000psi(70bar)
 S=50-200psi(3.5-14bar) Preset:100psi(7bar)
 Factory pressure setting established at 15L/min;

5 Seal Kits
 N=Buna N
 V=Viton

6 Port Size
 Omit=None
 8T=SAE8
 10T=SAE10
 3G=G 3/8
 4G=G 1/2

※ See page K-15 for detail of housing
 ※ Other port sizes are available

E

INSTALLATION DIMENSIONS

Unit=Millimeters

