LPPR-10

Pilot-operated Pressure Reducing/
Relieving Valve

DESCRIPTION

A cartridge-style pilot-operated pressure reducing/ relieving valve

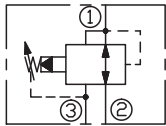## OPERATION

In its steady state, the valve allows flow to pass bi-directionally from ② to ①，with the spring chamber constantly drained at ③．On attainment of a pre-determined pressure at ① , the cartridge shifts to restrict input flow at ② , thereby regulating pressure at ① . In this mode, the valve will also relieve ① to ③ .

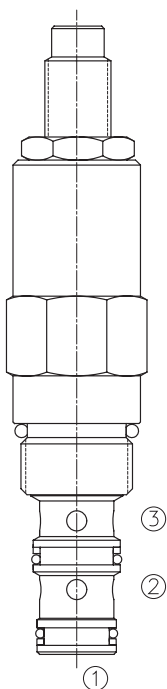Dead band (from reducing to relieving) pressure rise over reduced pressure setting:
Non-flow condition: approximately 0.55 bar (8 psi); with flow: approximately 2.1 bar(30 psi).
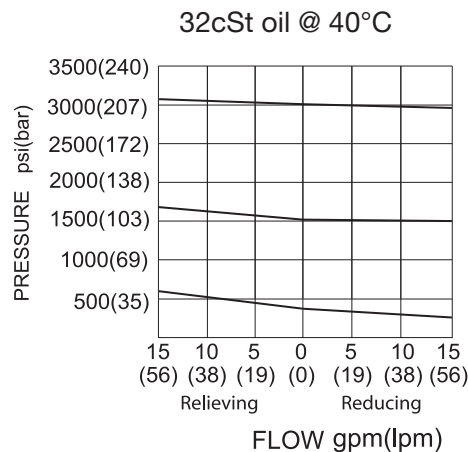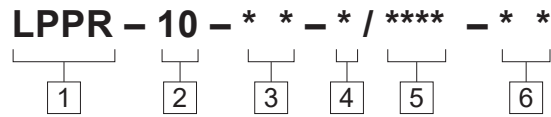
SYMBOL

SPECIFICATIONS

Operating Pressure	207bar
Flow	See performance chart
Standard Spring Ranges	6.9 to 27.6 bar, preset:13.8bar
	10.3 to 103 bar, preset: 56bar
	27.6 to 207 bar, preset: 103bar
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	10-3, See page M-2
Housing Material	6061-T6 aluminum alloy rated to 207bar, Steel & Ductile iron rated to 350bar

PRESSURE DROP VS.FLOW

32cSt oil @ 40°C

PRESSURE psi(bar)

3500(240)
3000(207)
2500(172)
2000(138)
1500(103)
1000(69)
500(35)

15 (56)	10 (38)	5 (19)	0 (0)	5 (19)	10 (38)	15 (56)

Relieving   Reducing

FLOW gpm(lpm)

TO ORDER

LPPR – 10 – * * – * / **** – * *

| 1 | 2 | 3 | 4 | 5 | 6 |

1 **Function**
LPPR=Pilot-operated Pressure Reducing/Relieving Valve

2 **Size**
10=10 Size

3 **Spring Ranges**
4=100-400psi(6.9-27.6bar)
    Preset:200psi(13.8bar)
15=150-1500psi(10.3-103bar)
    Preset:800psi(56bar)
30=400-3000psi(27.6-207bar)
    Preset:1500psi(103bar)

4 **Adjustment**
K=1-1/2"Dia Knob
Omit = 1/4" Hex Allen Head

5 **Optional Pressure Setting**
Omit=Standard Setting
Example:0100=100Bar

6 **Port Size**
Omit=None
6T=SAE6
8T=SAE8
2G=G 1/4
3G=G 3/8

※See page K-5 for detail of housing
※Other port sizes are available

E

INSTALLATION DIMENSIONS

Unit=Millimeters

38.1 DIA.

MAX81

(25.4)HEX
TORQUE
32-35Nm

46

③
②
①