

# LPD-10-4

Piloted 3-Way Spool  
Directional Valve

## DESCRIPTION

A cartridge-style 3-way pilot-operated spool-type internal-vent directional valve

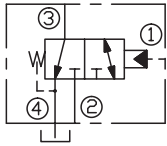
## OPERATION

On no remote pilot signal at ①, the valve allows flow from ③ to ④, while flow is blocked at ②.

On remote pilot signal at ①, the valve shifts to open from ③ to ②, while blocking flow at ④.

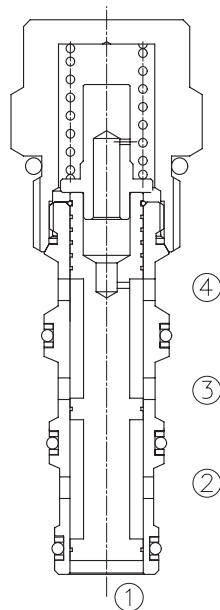
Since ④ is common to the spring chamber, pressure on ④ will directly (1:1) affect the pilot pressure required, and must always be added to the bias spring value.

## SYMBOL

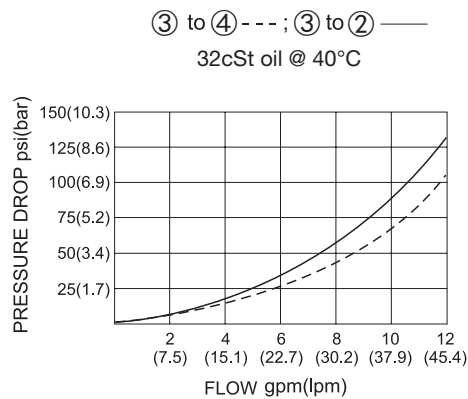


## SPECIFICATIONS

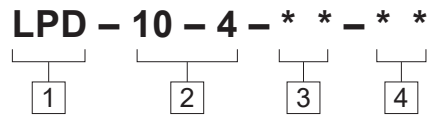
Operating Pressure	250bar
Flow	See PRESSURE DROP VS.FLOW graph.
Internal Leakage	82 cc/min max. at 250 bar
Pilot Pressure Required	To Spool Crossover -4.1 bar (60psi) Spring:4.7 bar(68.2psi) -7.6 bar(110psi) Spring: 7.6 bar(110psi) To Full Spool Shift -4.1 bar (60psi) Spring: 5.2 bar (75psi) -7.6 bar(110psi) Spring: 8.6 bar(125psi)
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	10-4, See page M-2
Housing Material	6061-T6 aluminum alloy rated to 207bar, Steel & Ductile iron rated to 350bar



## PRESSURE DROP VS.FLOW



**TO ORDER**



**1 Function**  
LPD=Piloted Three-way Spool  
Directional Valve

**2 Size**  
10-4=10-4 Size

**3 Bias spring**  
6=60psi(4.1bar)  
11=110psi(7.6bar)  
17=170psi(11.7bar)  
20=203psi(14bar)

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

※ See page K-6 for detail of housing  
※ Other port sizes are available

D

**INSTALLATION DIMENSIONS**

Unit=Millimeters

