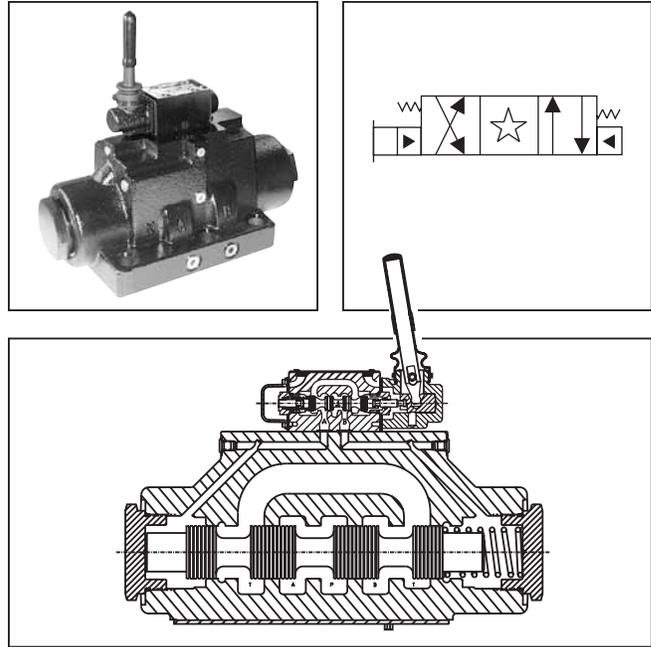A

## General Description

Series D101VL directional control valves are 5-chamber, lever operated valves. They are available is 2 or 3-position styles. These valves are manifold or subplate mounted, and conform to NFPA's D10, CETOP 10 mounting pattern.

## Specifications

| | |
|---|---|
| **Mounting Pattern** | NFPA D10, CETOP 10, NG32 |
| **Max. Operating Pressure** | 207 Bar (3000 PSI) |
| **Max. Tank Pressure** | Internal Drain Model: 34 Bar (500 PSI) External Drain Model: 207 Bar (3000 PSI) |
| **Max. Drain Pressure** | 34 Bar (500 PSI) |
| **Maximum Flow** | See Reference Chart |
| **Pilot Pressure** | Oil Min    6.9 Bar (100 PSI) Oil Max    207 Bar (300 PSI) |
| **Response Time** | Varies with pilot line size and length, pilot pressure, pilot valve shift time & flow capacity (GPM) |



## Features

- Low force required to shift spool.
- Hardened spools provide long life.
- Low pressure drop design.

## Ordering Information



| D | 101V | L | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Directional Control Valve | Basic Valve | Lever Operated Pilot | Spool | Style | Pilot Supply and Drain | Seal | Valve Variations | Design Series |

NFPA D10
CETOP 10

**Design Series** NOTE: Not required when ordering.

| Code | Symbol |
|---|---|
| 1 | |
| 2 | |
| 4 | |
| 8* 9** | |
| 11 | |

\* 8 spool has closed crossover.
\*\* 9 spool has open crossover.

Valve schematic symbols are per NFPA/ANSI standards, providing flow P to A when energizing operator A. Note operators reverse sides on #8 and #9 spools. See installation information for details.

| Code | Type |
|---|---|
| N | Nitrile |
| V | Fluorocarbon |

| Code | Supply — Drain |
|---|---|
| 1 | Int. pilot/Ext. drain |
| 2 | Ext. pilot/Ext. drain |
| 4# | Int. pilot/Int. drain |
| 5 | Ext. pilot/Int. drain |

\# Not available with 2, 8 & 9 spools.

| Code | Description |
|---|---|
| Omit | **Standard** |
| 7 | Pilot Choke – Meter Out |
| 8 | Stroke Adj. 'B' End |
| 9 | Stroke Adj. 'A' End |
| 60 | Pilot Choke – Meter In |
| 89 | Stroke Adj. 'A' & 'B' Ends |

| Code | Description | Symbol |
|---|---|---|
| B† | **Sgl. operator, 2 position, spring offset. P to A and B to T in offset position.** | |
| C | **Dbl. operator, 3 position, spring centered.** | |
| H† | **Sgl. operator, 2 position, spring offset. P to B and A to T in offset position.** | |

† Available with 1, 2, 4 & 11 spools only.

This condition varies with spool code.

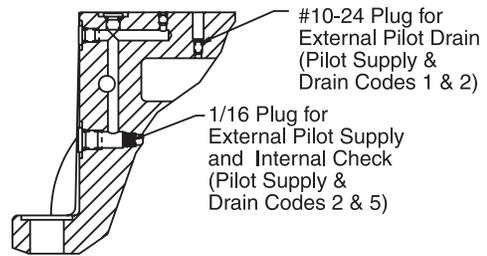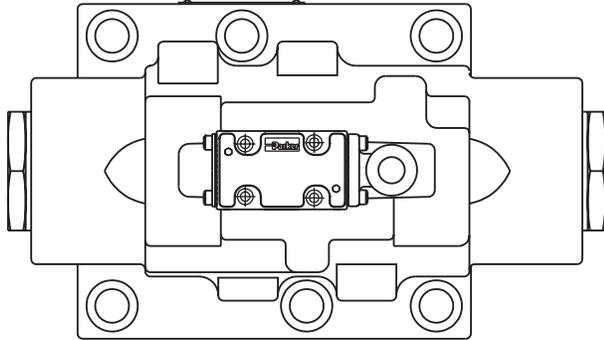**Bold: Designates Tier I products and options.**

**Non-Bold: Designates Tier II products and options. These products will have longer lead times.**

**Valve Weight:**      35.0 kg (77.2 lbs.)
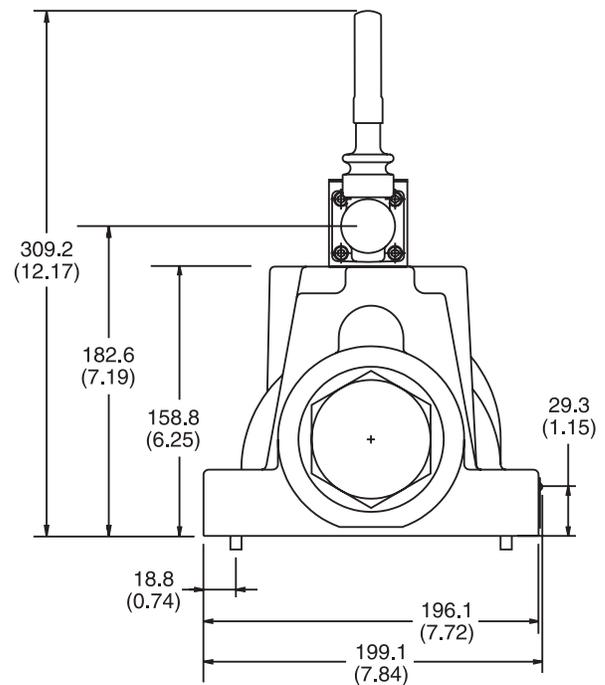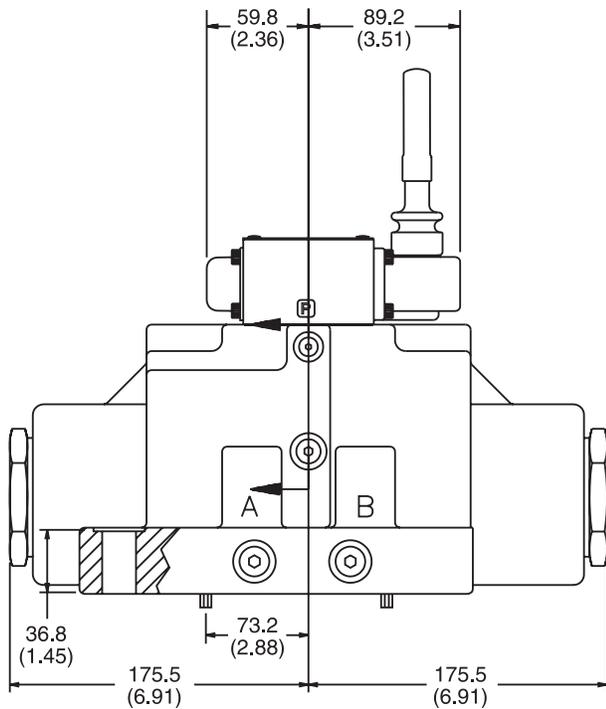**Standard Bolt Kit:** BK229
**Metric Bolt Kit:**    BKM229

D101.indd, dd

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

**A**

## Lever Operated



#10-24 Plug for
External Pilot Drain
(Pilot Supply &
Drain Codes 1 & 2)

1/16 Plug for
External Pilot Supply
and Internal Check
(Pilot Supply &
Drain Codes 2 & 5)

Section A-A



59.8
(2.36)

89.2
(3.51)

A   B

36.8
(1.45)

73.2
(2.88)

175.5
(6.91)

175.5
(6.91)

309.2
(12.17)

182.6
(7.19)

158.8
(6.25)

29.3
(1.15)

18.8
(0.74)

196.1
(7.72)

199.1
(7.84)

**Note:** 36.83mm (1.45") from bottom of bolt hole counterbore to bottom of valve.

D101.indd, dd

**Parker Hannifin Corporation**
Hydraulic Valve Division
Elyria, Ohio, USA