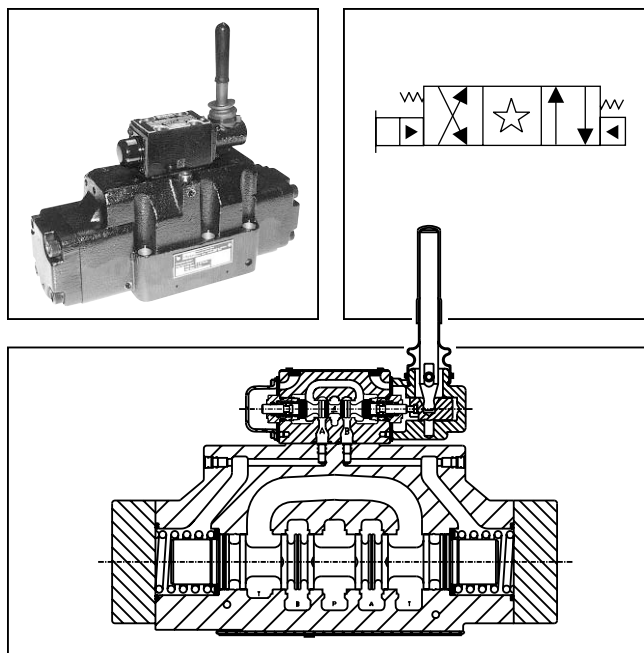


## General Description

Series D81VL directional control valves are 5-chamber, lever operated valves. They are available in 2 or 3-position styles. These valves are manifold or subplate mounted, and conform to NFPA's D08, CETOP 8 mounting pattern.

## Specifications

<b>Mounting Pattern</b>	NFPA D08, CETOP 8, NG25
<b>Maximum Operating Pressure</b>	350 Bar (5000 PSI) "T" Port (tank): 34 Bar (500 PSI) With External Drain: 350 Bar (5000 PSI)
<b>Maximum Flow</b>	See Reference Data Charts
<b>Pilot Pressure</b>	Oil Min: 6.9 Bar (100 PSI) Oil Max: 350 Bar (5000 PSI)
<b>Maximum Drain Pressure</b>	34 Bar (500 PSI)
<b>Response Time</b>	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**

Directional Control Valve

**81V**

Basic Valve

**L**

Lever Operated Pilot

Spool

Style

Pilot Supply and Drain

Seal Compound

Variations

Design Series

**NFPA D08 CETOP 8**

**Lever Operated Pilot**

Code	Symbol	Code	Symbol
1		11	
2		12	
4		20*	
8**		30**	
9**			

\* 8 & 20 spool has closed crossover.  
\*\* 9 & 30 spools have open crossover.

Code	Description
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 & 30 spools.

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.	
D†	Dbl. operator, 2 position, detent.	
E	Sgl. operator, 2 position, spring centered. P to B and A to T in shifted position.	
H†	Sgl. operator, 2 position, spring offset. P to B and A to T in offset position.	
K	Sgl. operator, 2 position. Spring centered. P to A and B to T in shifted position.	

† Available with 20 & 30 spools only.

Code	Description
7	Pilot choke – meter out
60	Pilot choke – meter in
8	Stroke adj. 'B'
9	Stroke adj. 'A'
89	Stroke Adj. 'A' & 'B'

**Valve Weight:** 19.6 kg (43.2 lbs.)

**Standard Bolt Kit:** BK228

**Metric Bolt Kit:** BKM228

**Code Description**

**B†** Sgl. operator, 2 position, spring offset. P to A and B to T in offset position.

**C** Dbl. operator, 3 position, spring centered.

**D†** Dbl. operator, 2 position, detent.

**E** Sgl. operator, 2 position, spring centered. P to B and A to T in shifted position.

**H†** Sgl. operator, 2 position, spring offset. P to B and A to T in offset position.

**K** Sgl. operator, 2 position. Spring centered. P to A and B to T in shifted position.

**Symbol**

This condition varies with spool code.

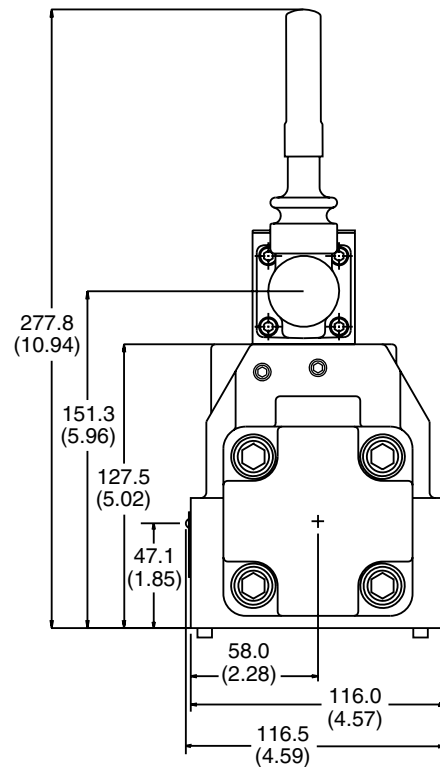
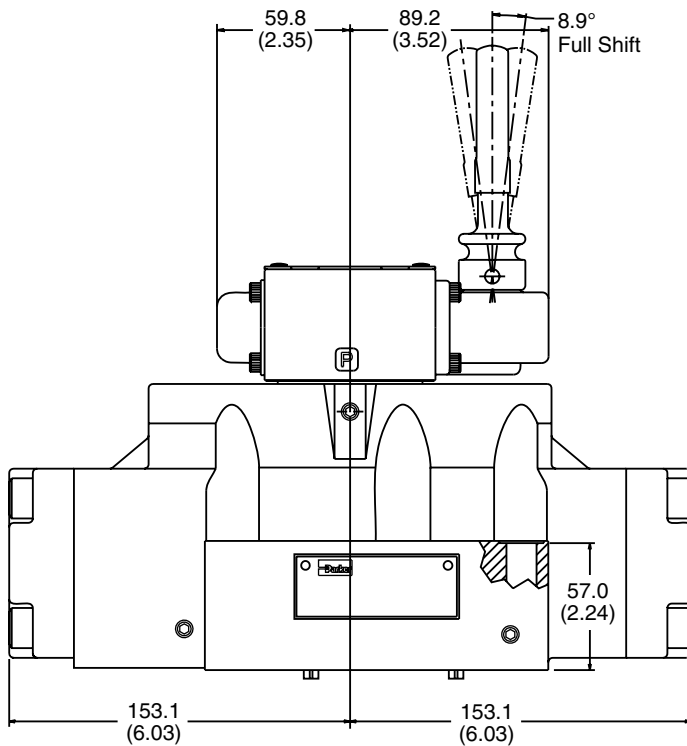
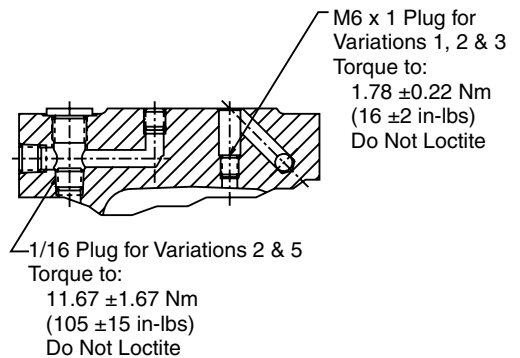
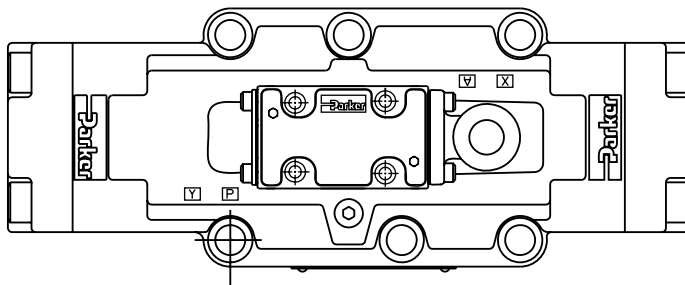
**Design Series**

NOTE: Not required when ordering.

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

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

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

**Lever Operated****A****Note:** 57mm (2.24") from bottom of bolt hole counterbore to bottom of valve.