

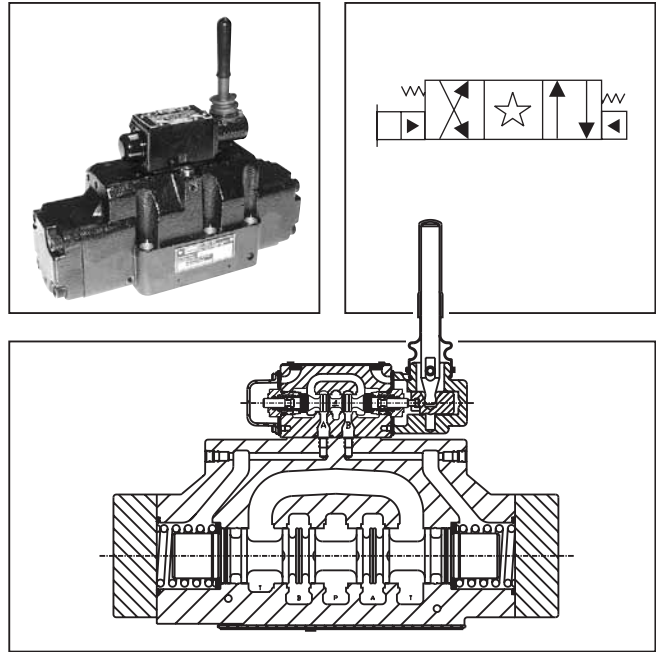
Parker D81VL Series Lever Operated Directional Control Valve Service Manual

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.

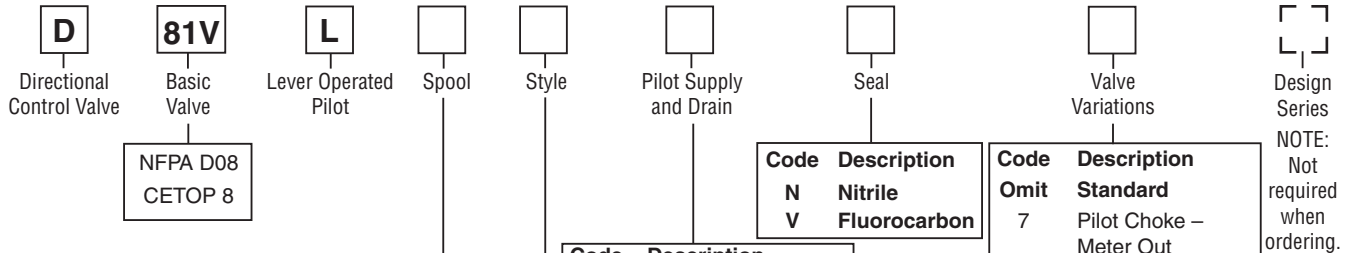
Specifications

Mounting Pattern	NFPA D08, CETOP 8, NG25
Max. Operating Pressure	350 Bar (5000 PSI)
Max. Tank Line Pressure	Internal Drain Model 34 Bar (500 PSI) External Drain Model 350 Bar (5000 PSI)
Maximum Drain Pressure	34 Bar (500 PSI)
Maximum Flow	See Reference Data Charts
Pilot Pressure	Oil Min 6.9 Bar (100 PSI) Oil Max 350 Bar (5000 PSI)
Response Time	Varies with pilot line size and length, pilot pressure, pilot valve shift time & flow capacity (GPM)



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Ordering Information



Code	Symbol	Code	Symbol
001		011	
002		012	
004		020*	
008*		030**	
009**			

* 008 & 020 spools have closed crossover.
** 009 & 030 spools have open crossover.

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

Valve Weight: 19.6 kg (43.2 lbs.)
Standard Bolt Kit: BK228
Metric Bolt Kit: BKM228

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 002, 008, 009 & 030 spools.

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

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.	

This condition varies with spool code.

† Available with 020 & 030 spools only.

Bold: Designates Tier I products and options.

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

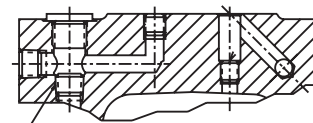
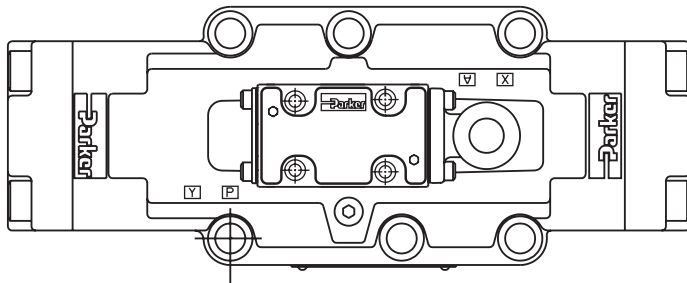
D81.indd, dd



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

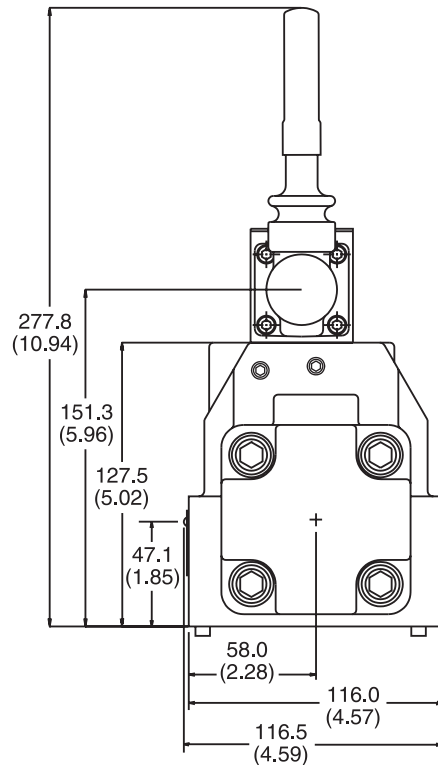
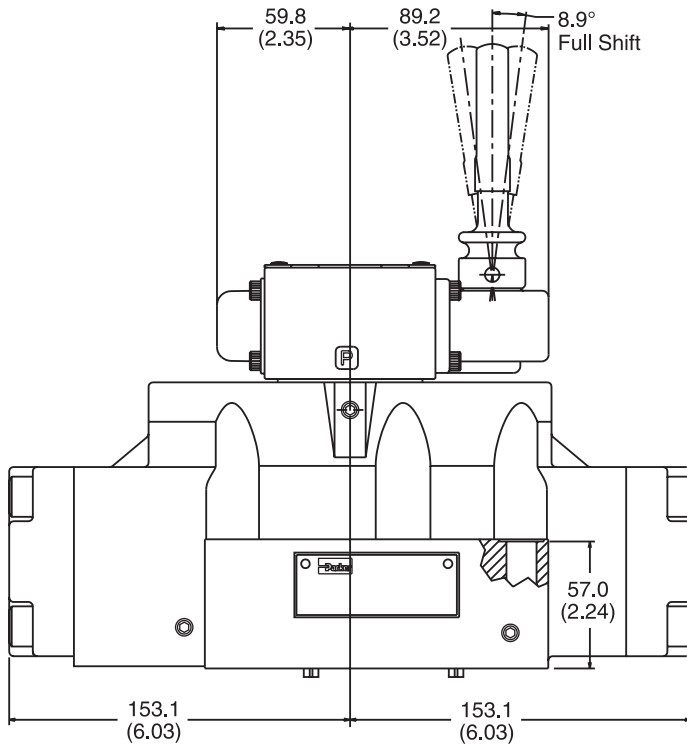
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Lever Operated



M6 x 1 Plug for Variations 1 & 2
Torque to:
1.78 ±0.22 Nm
(16 ±2 in-lbs)
Do Not Loctite

1/16 Plug for Variations 2 & 5
Torque to:
11.67 ±1.67 Nm
(105 ±15 in-lbs)
Do Not Loctite



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