Parker D8P Series Oil Operated Directional Control Valve Service Manual

General Description

Series D8P directional control valves are 5-chamber, pilot operated valves. They are available in 2 or 3-position styles. These valves are manifold or sub-plate mounted, and conform to NFPA's D08, CETOP 8 mounting pattern.

Features

- Low pressure drop design.
- Hardened spools provide long life.

Specifications

Mounting Pattern	NFPA D08, CETOP 8, NG25
Max. Operating Pressure	345 Bar (5000 PSI)
Max. Tank Line Pressure	345 Bar (5000 PSI)
Max. Drain Pressure	345 Bar (5000 PSI)
Min. Pilot Pressure	5.1 Bar* (75 PSI)
Max. Pilot Pressure	345 Bar (5000 PSI)
Nominal Flow	302 LPM (80 GPM)
Max. Flow	See Reference Data Chart

* 6.9 Bar (100 PSI) for 2, 8, 9 & 12 spools

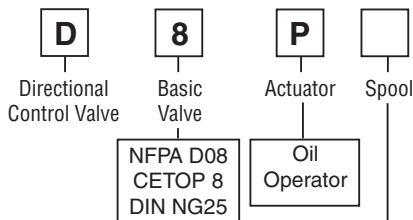For flow path, pilot drain and pilot pressure details, see Installation Information.
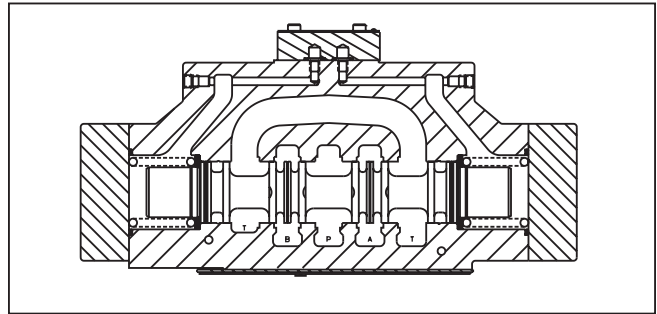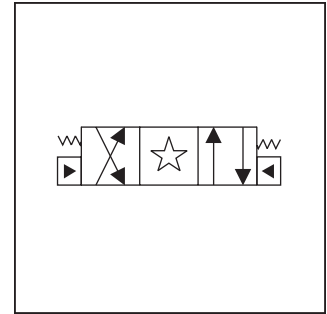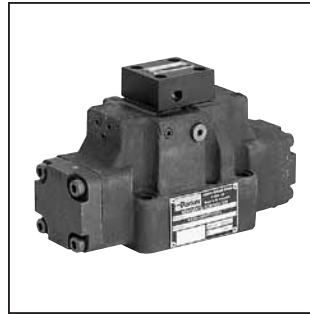
Response Time

Response time will vary with pilot line size, pilot line length, pilot pressure shift time and flow capacity of the control valve.

Shift Volume

The pilot chamber requires a volume of 1.35 in^3 (22.1 cc) for center to end.

Ordering Information

D	8	P							
Directional Control Valve	Basic Valve	Actuator	Spool	Style	Pilot Supply and Drain	Seal		Valve Variations	Design Series

Basic Valve: NFPA D08 CETOP 8 DIN NG25

Actuator: Oil Operator

Design Series NOTE: Not required when ordering.

Code	Type
N	Nitrile
V	Fluorocarbon

Code	Description
2	**Ext. Pilot / Ext. Drain**
5#	Ext. Pilot / Int. Drain

\# Available in "B" and "H" style only.

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

Spool Codes

Code	Symbol	Code	Symbol
1		11	
2		12	
4		**20***	
7		**30****	
9**			

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

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

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.**	

This condition varies with spool code.

† Available with 20 & 30 spools only.

Valve Weight: 18.9 kg (41.7 lbs.)   **Standard Bolt Kit:** BK228   **Metric Bolt Kit:** BKM228

Bold: Designates Tier I products and options.

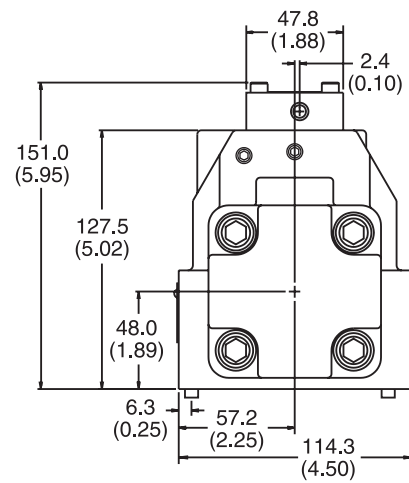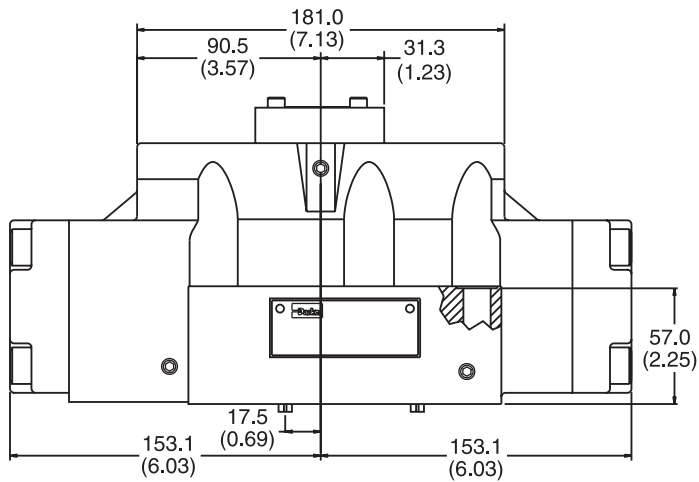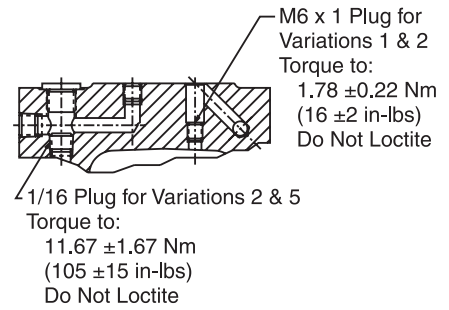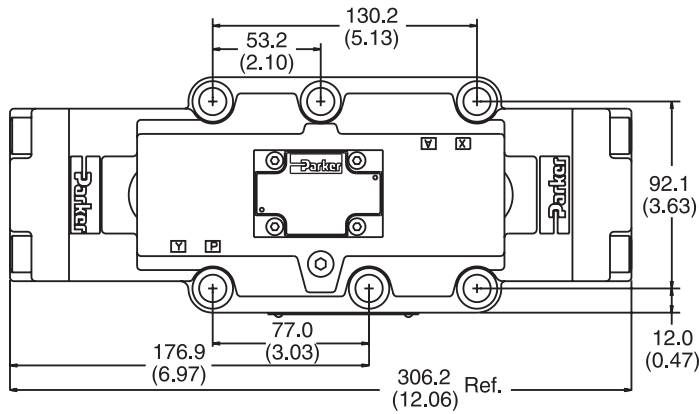**Non-Bold: Designates Tier II products and options. These products will have longer lead times.**

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

Standard Pilot 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

Pilot Operated with Pilot Choke Control

Pilot Choke
Control
Variation 7
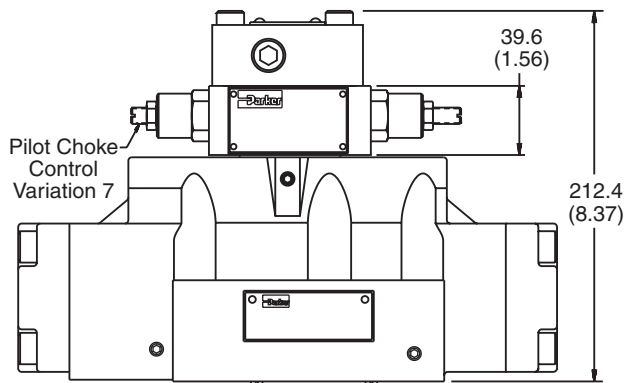
Note: 57mm (2.24") from bottom of bolt hole counterbore to bottom of valve.

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