General Description

Series D1VA and D1VP directional control valves are high performance, 4 and 5-chamber, direct operated, air and oil pilot controlled, 3 or 4-way valves. They are available in 2 or 3-position and conform to NFPA's D03, CETOP 3 mounting patterns.

Features

Low pilot pressure required.
D1VA – 4.1 Bar (60 PSI) minimum
D1VP – 15.2 Bar (220 PSI) minimum

Air Operated

Shift Volume. The air pilot chamber requires a volume of $1.8 \text{ cc} (.106 \text{ in.}^3)$ for complete shift from center to end.

Pilot Piston. The pilot piston area is 506 mm² (.785 in.²). Pilot piston stroke is 3.4 mm (.135 in.).

Response Time. Response time will vary with pilot line size, pilot line length, pilot pressure, air control valve shift time and air valve flow capacity (Cv).

Oil Operated

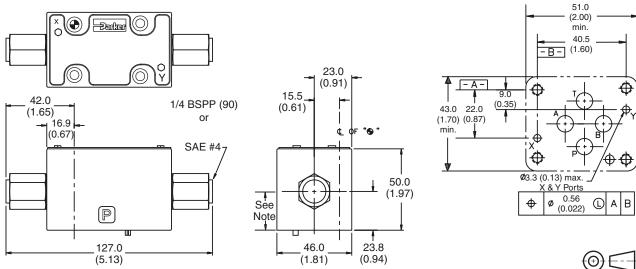
Shift Volume. The hydraulic pilot chamber requires a volume of 0.7 cc $(.042 \text{ in.}^3)$ for complete shift from center to end.

Pilot Piston. The hydraulic piston area is 198 mm² (.307 in.²). Pilot piston stroke is 3.4 mm (.135 in.).

Response Time. Response time will vary with pilot line size, pilot line length, pilot pressure, pilot valve shift time and oil valve flow capacity (GPM).

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

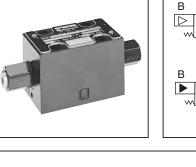
Oil Operated D1VP, Single and Double Pilot

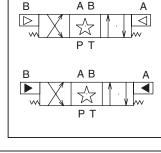


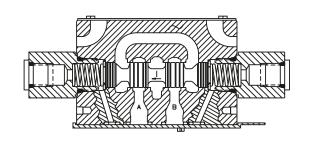
D1.indd, dd



Note: 22.0 mm (0.87") from bottom of bolt hole counterbore to bottom of valve.

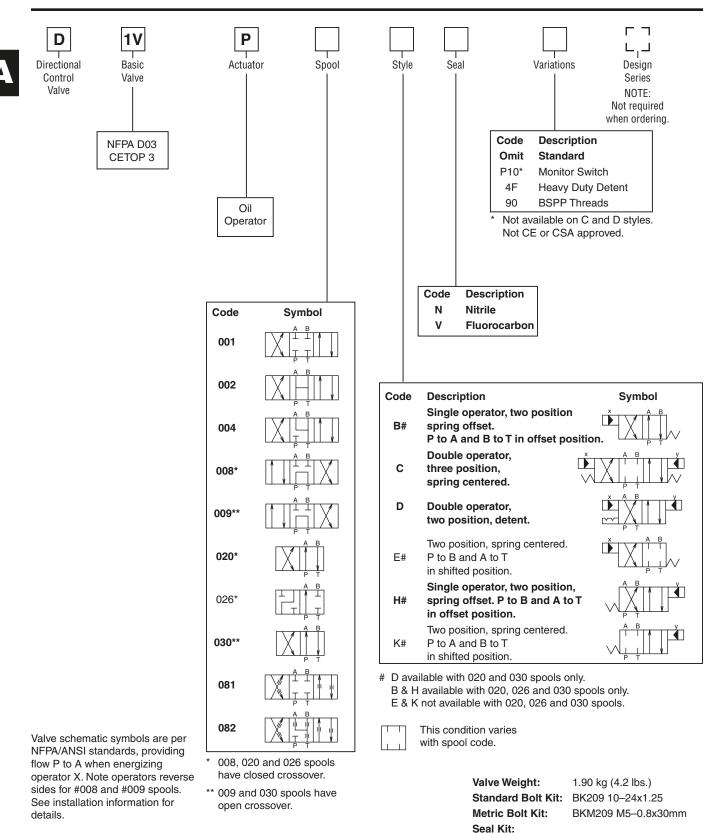






Specifications

Mounting Pattern	NFPA D03, CETOP 3, NG 6	
Maximum Pressure	Operating: Tank Line: D1VA D1VP	345 Bar (5000 PSI) 34 Bar (500 PSI) 207 Bar (3000 PSI)
Maximum Flow	See Reference Data	
Pilot Pressure	D1VA: Air Minimum Air Maximum D1VP: Oil Minimum Oil Maximum	4.1 Bar (60 PSI) 10.2 Bar (150 PSI) 15.2 Bar (220 PSI) 207 Bar (3000 PSI)



Bold: Designates Tier I products and options.

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

D1.indd, dd

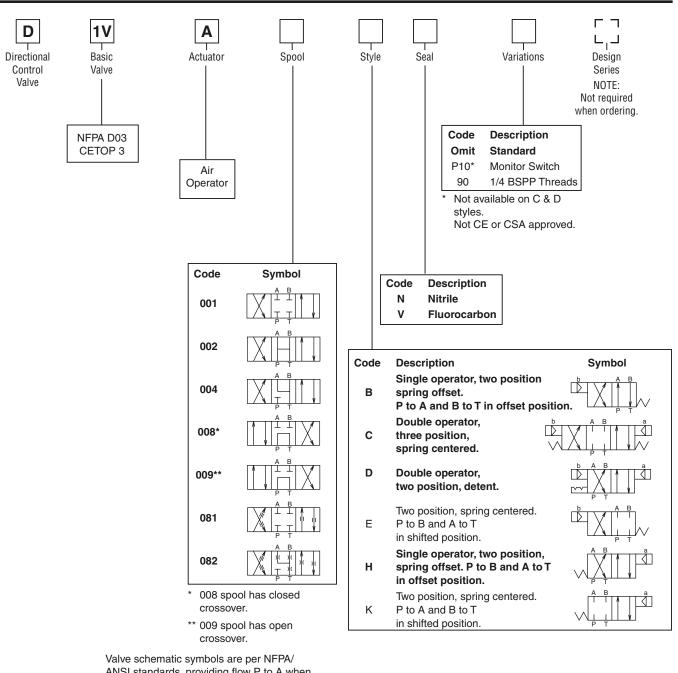


SKD1VP

SKD1VPV

Nitrile

Fluorocarbon



Valve schematic symbols are per NFPA/ ANSI standards, providing flow P to A when energizing operator A. Note operators reverse sides for #008 and #009 spools. See installation information for details.

This condition varies with spool code.

Valve Weight:	1.60 kg (3.5 lbs.)
Standard Bolt Kit:	BK209 10-24x1.25
Metric Bolt Kit:	BKM209 M5-0.8x30mm
	Grade 8 bolts required
Seal Kit:	
Nitrile	SKD1VA
Fluorocarbon	SKD1VAV

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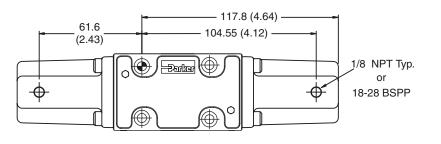
D1.indd, dd

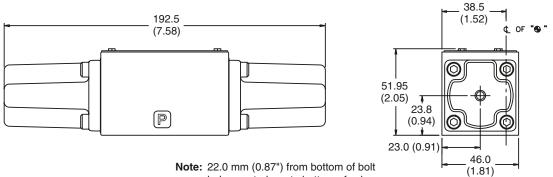


Inch equivalents for millimeter dimensions are shown in (**)



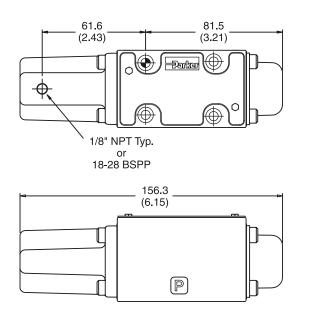
Air Operated D1VA, Double Pilot

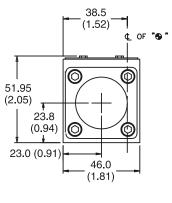




hole counterbore to bottom of valve.

Air Operated D1VA, Single Pilot





Note: 22.0 mm (0.87") from bottom of bolt hole counterbore to bottom of valve.

D1.indd, dd



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