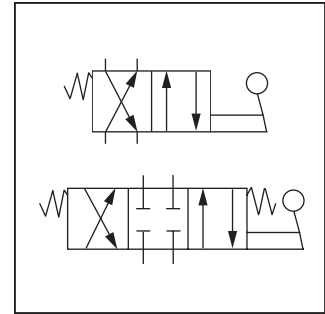
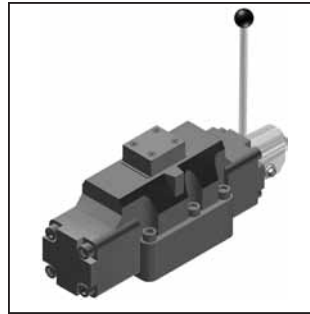


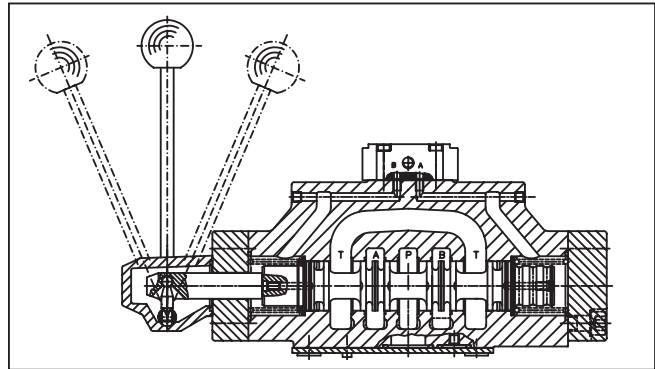
**General Description**

Series D9L directional control valves are 5-chamber, 4 way, 2 or 3-position valves. They are operated by a hand lever which is directly connected to the spool. The hand lever can be located either on the A or B side. Spring offset and detent designs are available.



**Features**

- Streamlined internal channels ensure minimum pressure drop at maximum flow.
- Hardened spools provide long life.



**Specifications**

General		Hydraulic (cont.)	
<b>Actuation</b>	Lever	<b>Fluid</b>	Hydraulic oil in accordance with DIN 51524 / 51525
<b>Size</b>	NG25	<b>Fluid Temperature</b>	-25°C to +70°C (-13°F to +158°F)
<b>Mounting Interface</b>	DIN 24340 A25 ISO 4401 NFPA D08 CETOP RP 121-H	<b>Viscosity Permitted</b>	2.8 to 400 cSt / mm <sup>2</sup> /s (13 to 1854 SSU)
<b>Mounting Position</b>	Unrestricted, preferably horizontal	<b>Viscosity Recommended</b>	30 to 80 cSt / mm <sup>2</sup> /s (139 to 371 SSU)
<b>Ambient Temperature</b>	-25°C to +50°C (-13°F to +122°F)	<b>Filtration</b>	ISO 4406 (1999); 18/16/13 (meet NAS 1638: 7)
<b>Hydraulic</b>		<b>Maximum Flow</b>	700 LPM (185.2 GPM)
<b>Maximum Operating Pressure</b>	<b>External Drain</b> P, A, B, T 350 Bar (5075 PSI) X, Y 10 Bar (145 PSI)  <b>Internal Drain</b> P, A, B 350 Bar (5075 PSI) T, X, Y 10 Bar (145 PSI)	<b>Leakage at 350 Bar (5075 PSI)</b>	up to 800 ml per minute (per flow path) (depending on spool)

**A**

**D**  
 Directional Control Valve

**9**  
 Basic Valve

NFPA D08  
 CETOP 8  
 DIN NG25  
 32 mm

Actuator

Spool

Style

Pilot Supply and Drain

Seal

Design Series

NOTE:  
 Not required when ordering.

Code	Actuation
L	Lever Side B
LB	Lever Side A

Code	Description
2*	External Pilot External Drain
5**	External Pilot Internal Drain

\* Pressure T-port < 10 bar  
 \*\* Pressure T-port > 10 bar

Code	Description
N	Nitrile
V	Fluorocarbon

Code	Symbol	Code	Symbol
01		09	
02		14	
03		15	
04		20	
07		30	

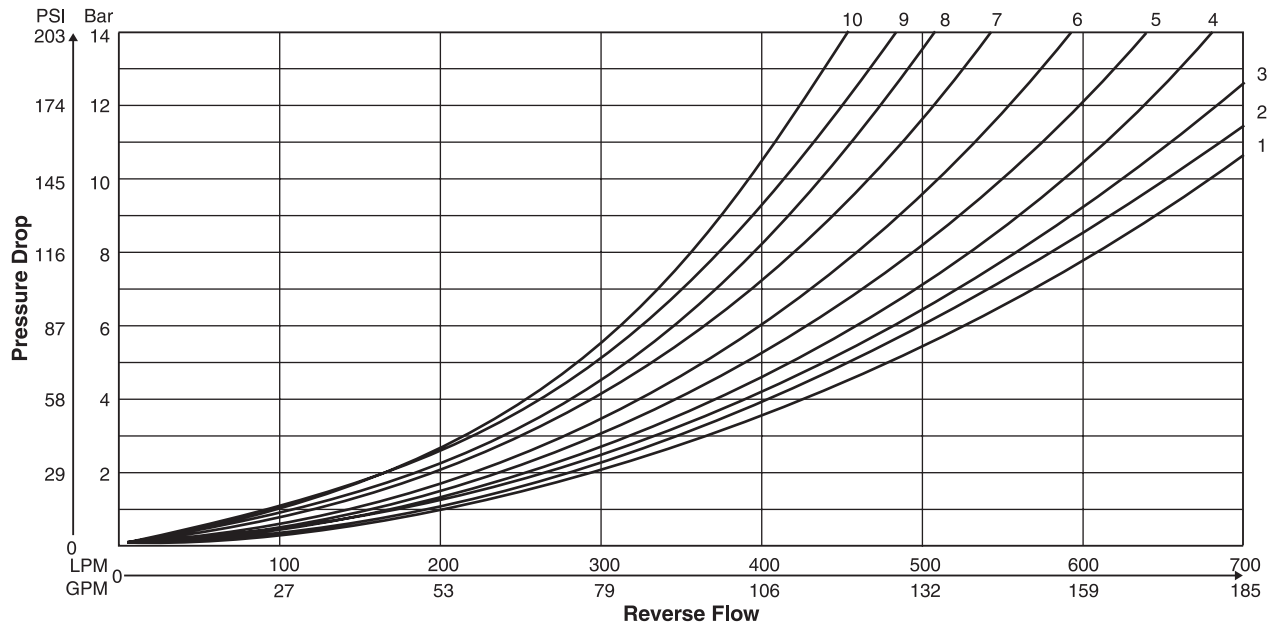
Code	Description	Symbol
B	Single operator, 2 position, spring offset.	
C	Double operator, 3 position, spring centered.	
D	Double operator, 2 position, detent.	
E	Single operator, 2 position, spring centered.	
H	Single operator, 2 position, spring offset.	
K	Single operator, 2 position, spring centered.	
N	Double operator, 3 position, detent.	

**Weight:** 17.0 kg (37.5 lbs.)

The flow curve diagram shows the flow versus pressure drop curves for all spool types. The relevant curve number for each spool type, operating position and flow direction is given in the table below.



Spool Code	Curve Number				
	P-A	P-B	P-T	A-T	B-T
1	3	2	-	3	5
2	2	1	1	3	5
3	4	2	-	3	6
4	4	3	-	3	5
7	3	1	7	3	5
9	4	8	9	4	10
14	1	3	7	5	3
15	2	4	-	5	3
20	6	5	-	6	8
30	3	2	-	3	5

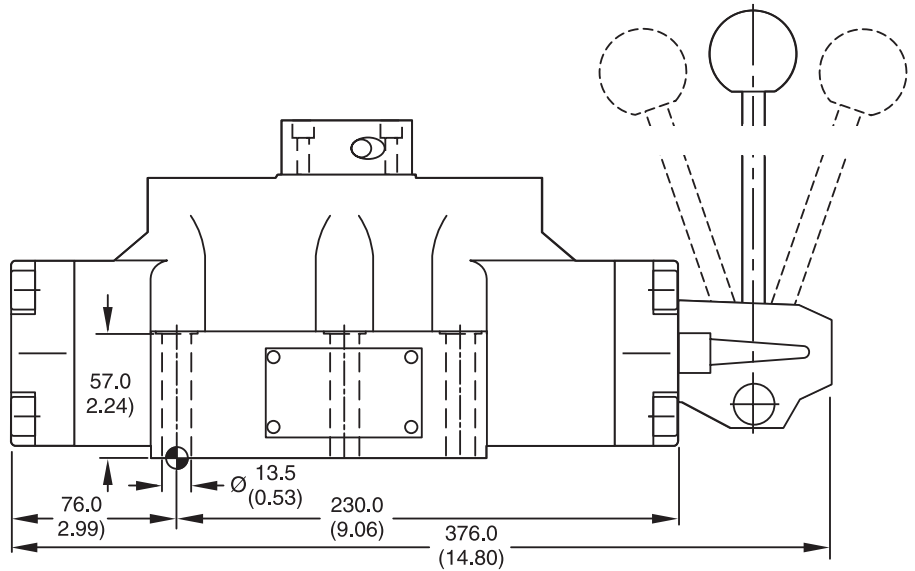
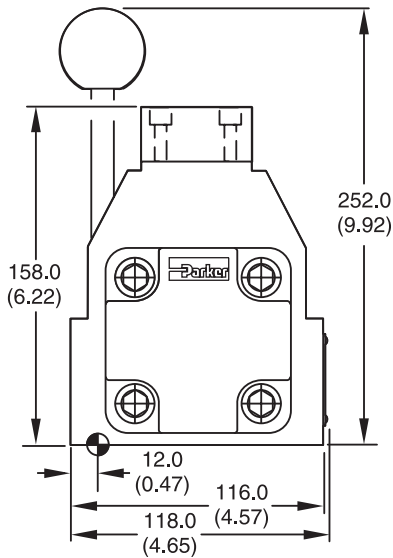


Inch equivalents for millimeter dimensions are shown in (\*\*)

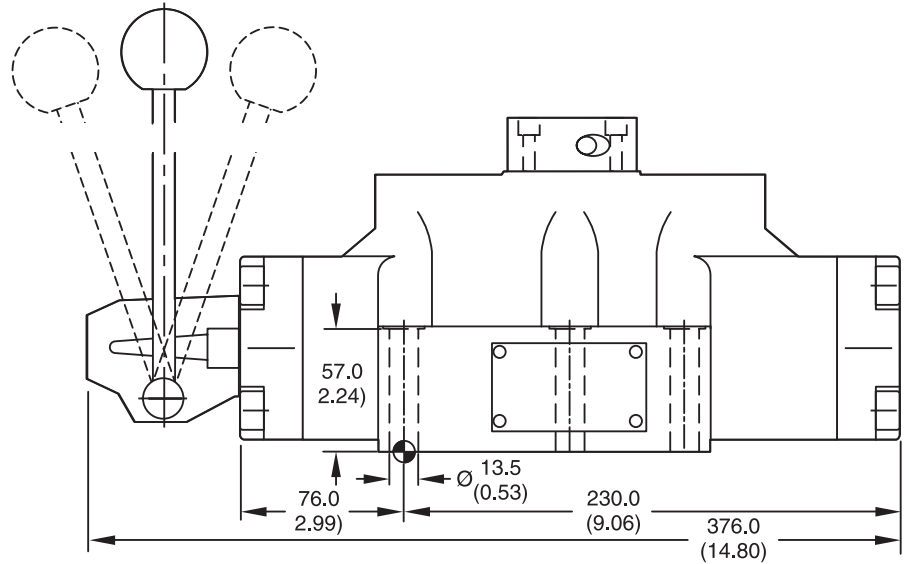
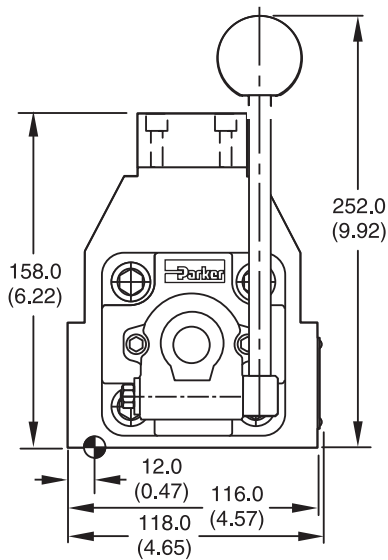


**A**

**D9L**



**D9LB**



Surface Finish	Kit			Seal Kit
	BK360	6x M5x75 DIN 912 12.9	108 Nm ±15%	Nitrile: SK-D9LN Fluorocarbon: SK-D9LV

D81.indd, dd

