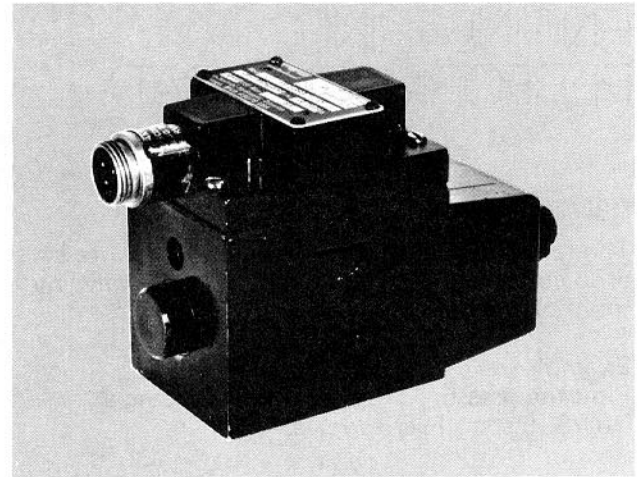


Technical Information

Series D3W Solenoid Operated Valves, Directional Control

ENGINEERING PERFORMANCE DATA

MTG. PATTERN	NFPA D05, (Formerly D02); CETOP 5; NG 10
MAXIMUM PRESSURE	Operating 3000 PSI (205 Bar) Tank Line: 1500 PSI (102 Bar)
NOMINAL FLOW	12 GPM (45 LITERS/MIN.)
MAXIMUM FLOW	See chart below.



SOLENOID ELECTRICAL CHARACTERISTICS			
SOLENOID CODE	NOMINAL VOLTS/Hz	CURRENT (AMP)*	
		In Rush	Holding
Y	120/60	4.2	.72
	110/50	4.3	.75
YF**	120/60	2.8	.40
	110/50	2.9	.42
T	240/60	2.1	.36
	220/50	2.2	.38
E	24/60	16	2.7
	24/50	20	3.5

SOLENOID CODE	NOMINAL VOLTAGE	Current (AMP)*	Watts*
L	6 VDC	6.0	36
K	12 VDC	3.0	36
J	24 VDC	1.5	36
D	120 VDC	.3	36
Z	250 VDC	.14	36

*Based on nominal voltage
**3000 PSI, 12 GPM

The wet armature coil is a two lead dual frequency coil. It can be used on 50 or 60 hertz current without rewiring.

RESPONSE TIME

Nominal Response time (milliseconds)
at 3000 PSI, 12 GPM

SOLENOID TYPE	PULL-IN	DROP-OUT
AC	16	20
DC	60	50

QUICK REFERENCE DATA CHART								
Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI	Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI	Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI
D3W1		20	D3W5		20	D3W10		4
D3W2		20	D3W6		20	D3W11		20
D3W3		20	D3W7		8	D3W15		20
D3W4		20	D3W8		12	D3W16		20

Technical Information

ENGINEERING PERFORMANCE DATA

D3W SERIES PRESSURE DROP CHART

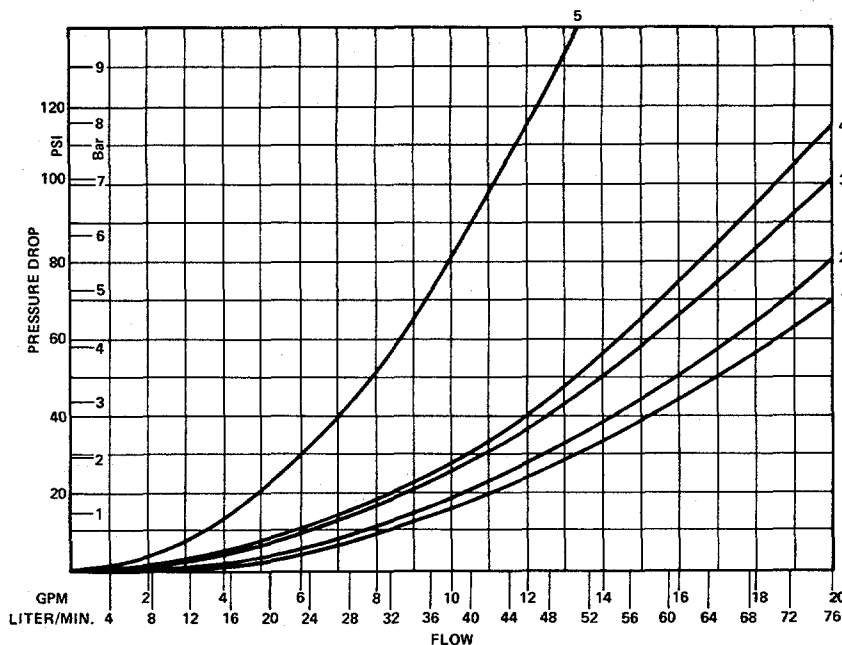
The following chart provides the flow vs. pressure drop curve reference for the D3W Series valve by spool type.

Example:

Find the pressure drop from P to B using a D3W8 (8 spool) Series valve.

Using the D3W chart locate the numeral 8 in the Spool Code column. To the right of the numeral 8, locate the numeral 4 in the P-B column. A pressure drop (ΔP) from P to B using a D3W8 valve would be obtained on curve number 4.

D3W Pressure Drop Curve Reference Chart					
Spool Code	Curve Number				
	P-A	P-B	P-T	A-T	B-T
1	4	4	—	3	3
2	3	3	2	2	2
3	4	4	—	1	3
4	4	4	—	1	1
5	3	4	—	3	3
6	3	3	—	3	3
7	4	3	5	3	2
8	4	4	5	3	2
10	4	4	—	—	—
11	4	4	—	3	3



PRESSURE DROP vs. FLOW

Curves were generated using 100 SSU hydraulic oil. For any other viscosity pressure drop will change as per chart.	VISCOSITY CORRECTION FACTOR							
	Viscosity (SSU)	75	150	200	250	300	350	400
	Percentage of ΔP (Approx.)	93	111	119	126	132	137	141

**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

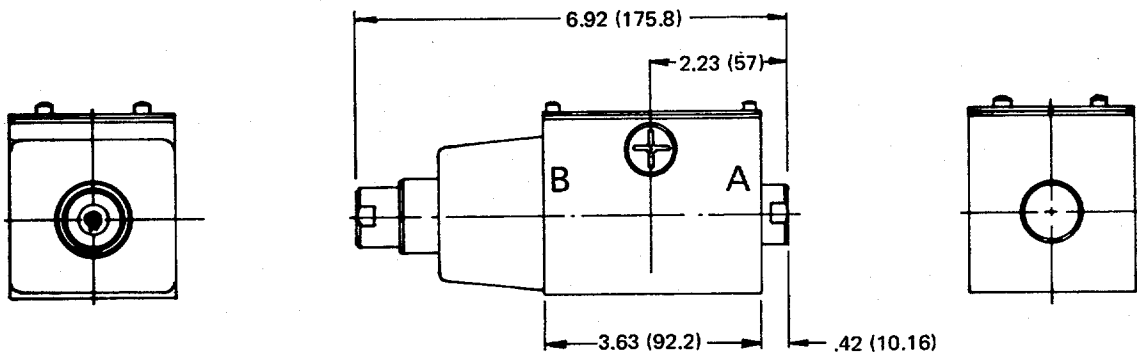
Technical Information

DIMENSIONS

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

AC SOLENOIDS

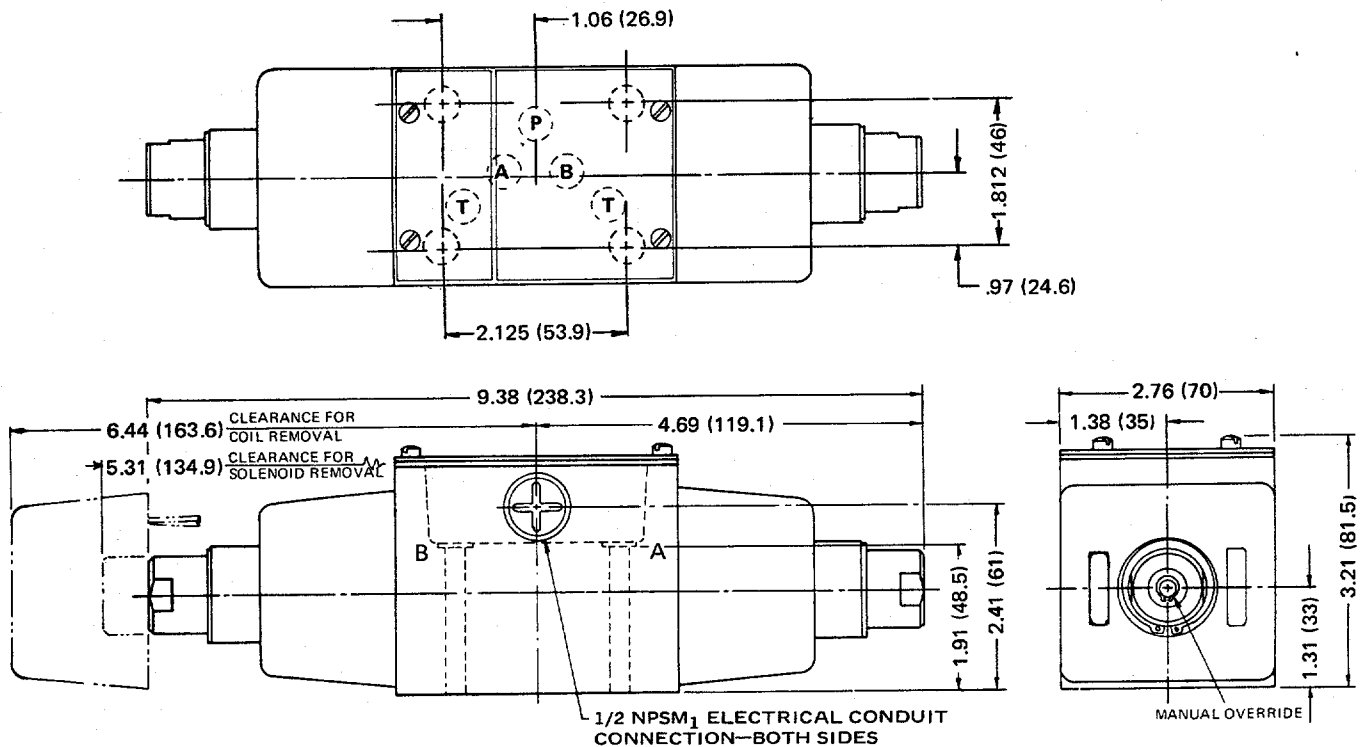
SINGLE AC SOLENOID, SPRING OFFSET MODELS
D3W*B*, D3W*E*, D3W*F*, D3W*H*, D3W*K*, D3W*M*



NOTE: ON SINGLE SOLENOID MODELS,
SOLENOID CAN BE MOUNTED EITHER END.

DOUBLE AC SOLENOID, SPRING CENTERED AND DETENTED MODELS D3W*C*, D3W*D*

NOTE: ON VALVES WITH 8 SPOOL, A AND/OR B OPERATORS REVERSE SIDES. FLOW PATHS REMAIN THE SAME.



Technical Information

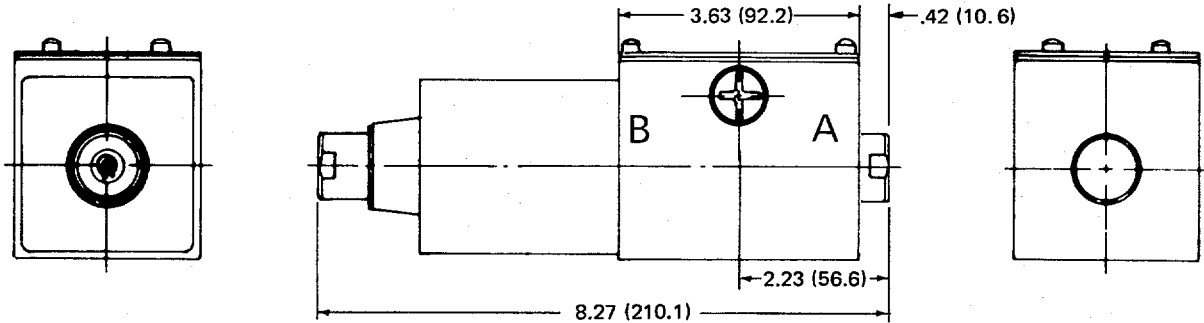
DIMENSIONS

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

DC SOLENOIDS

SINGLE DC SOLENOID SPRING OFFSET MODELS

D3W*B*, D3W*E*, D3W*F*, D3W*H*, D3W*K*, D3W*M*

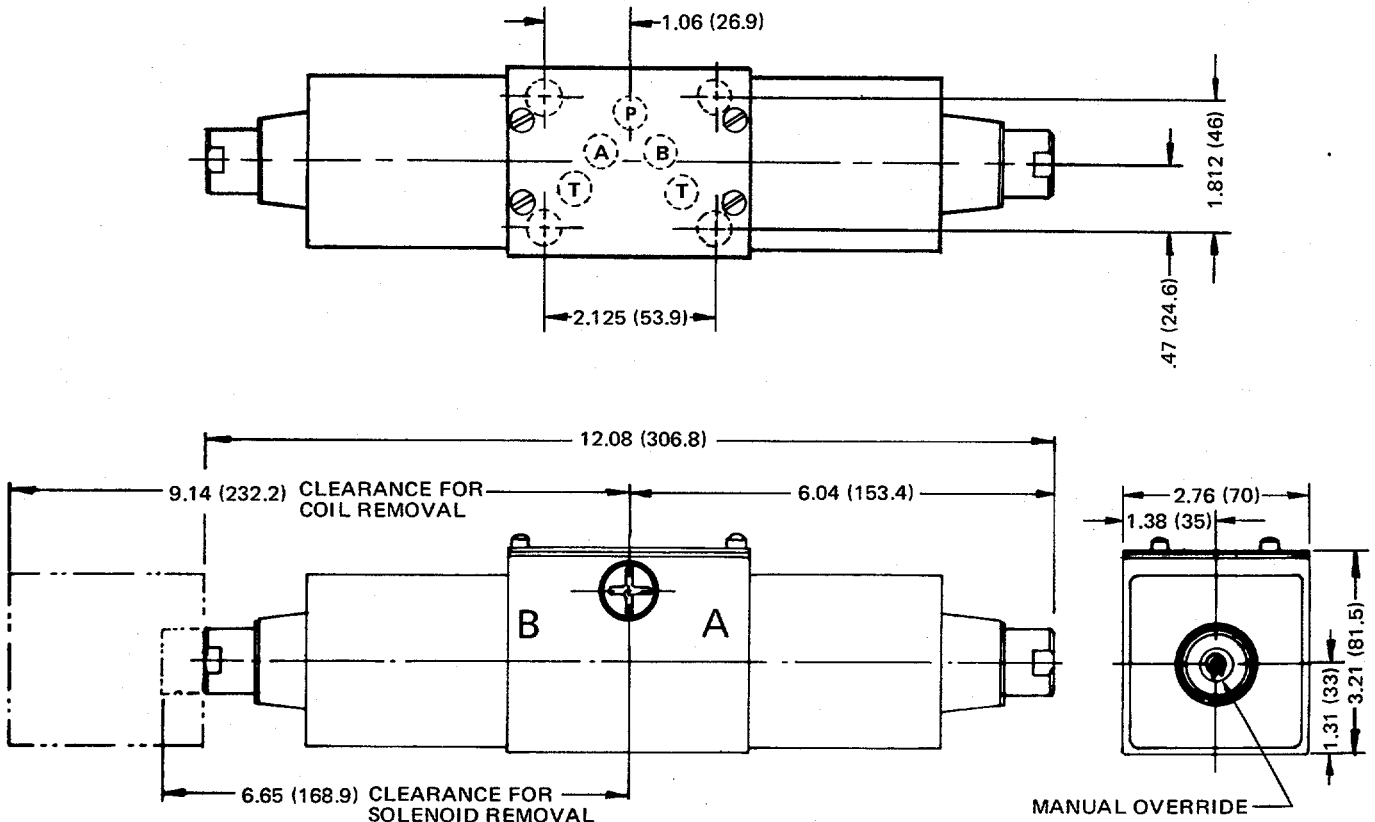


NOTE: ON SINGLE SOLENOID MODELS,
SOLENOID CAN BE MOUNTED EITHER END.

DOUBLE DC SOLENOID SPRING CENTERED AND DETENTED MODELS

D3W*C*, D3W*D*

NOTE: ON VALVES WITH 8 SPOOL, A AND/OR B OPERATORS REVERSE SIDES. FLOW PATHS REMAIN THE SAME.



**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

Series D3W

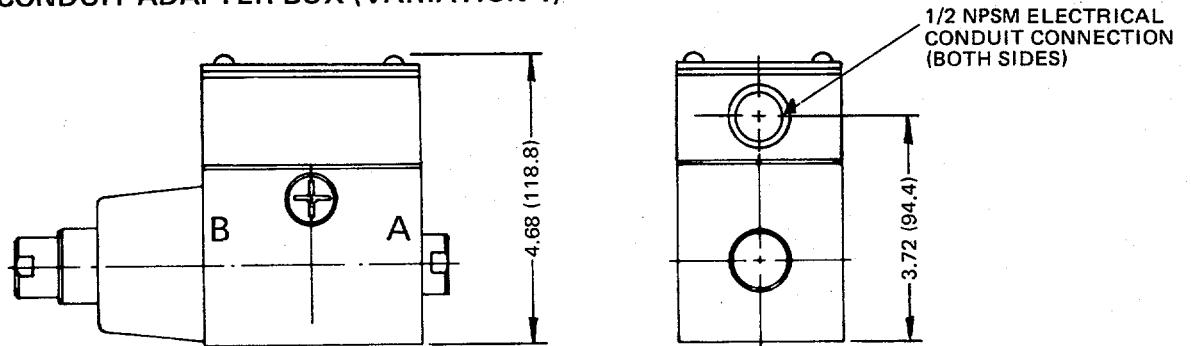
Solenoid Operated
Valves, Directional Control

Technical Information

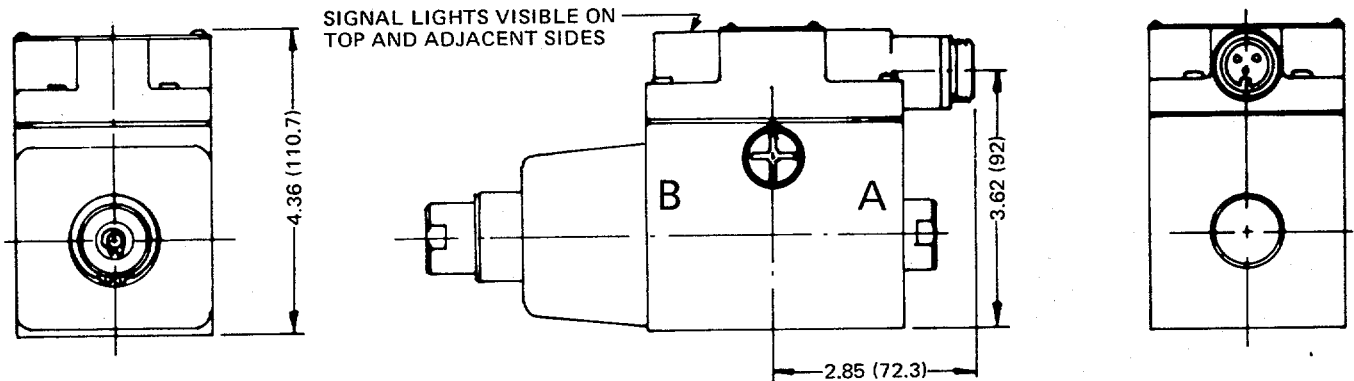
DIMENSIONS

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

VALVE WITH CONDUIT ADAPTER BOX (VARIATION 1)

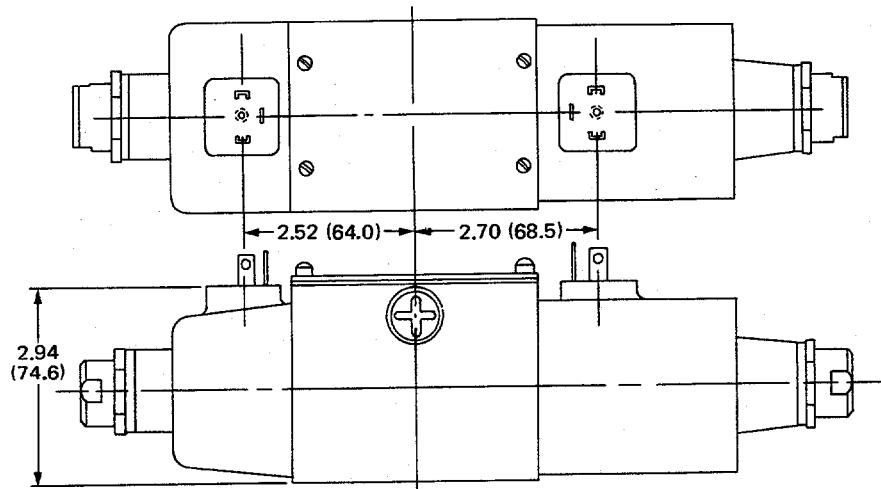


MANAPLUG PLUG-IN (VARIATION 6) AND/OR VALVE WITH MANAPLUG PLUG-IN AND SIGNAL LIGHTS (VARIATION 56)



NOTE: MANAPLUG PLUG-IN POSITION . . .
SINGLE SOLENOID MODELS - PLUG-IN IS ALWAYS OPPOSITE SOLENOID.
DOUBLE SOLENOID MODELS - PLUG-IN IS ALWAYS ON "A" SOLENOID END.

DIN CONNECTOR - (HIRSCHMANN) AC SOLENOID - DC SOLENOID



Installation Information

Series D3W & D3A & Manual Operator

Subplates

ACCESSORIES

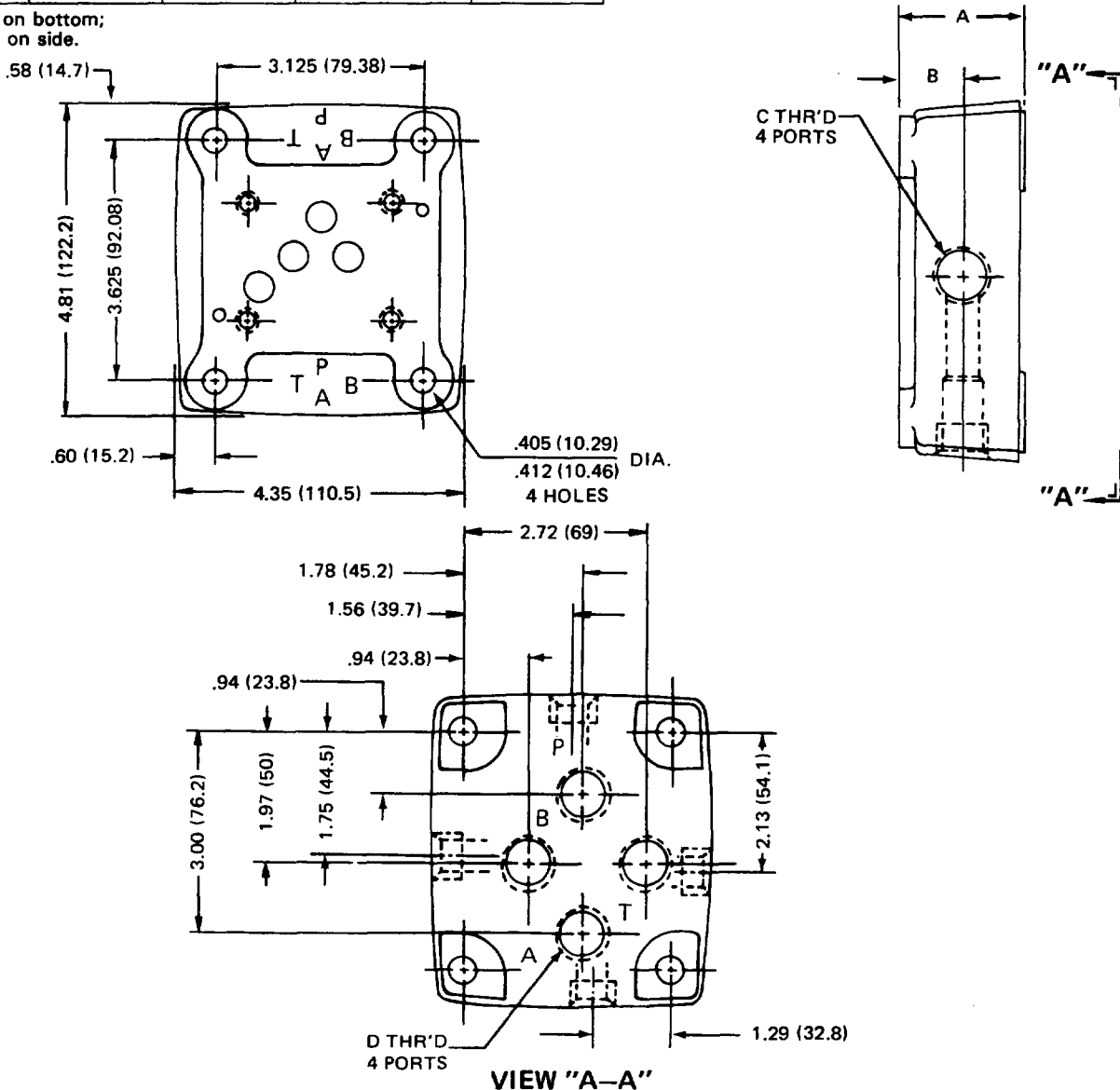
"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

SUBPLATES

The bolt kit for mounting valves to all subplates is BK226.

SUBPLATE	A	B	C or D	PORT LOCATION
SPD33	1.34 (34.0)	--	3/8 NPTF	BOTTOM
SPD34	1.34 (34.0)	--	1/2 NPTF	BOTTOM
SPD33A	1.34 (34.0)	.88 (22.4)	3/8 NPTF	SIDE
SPD34A	1.57 (39.9)	.88 (22.4)	1/2 NPTF	SIDE
SPD33C	1.57 (39.9)	.88 (22.4)	3/8 NPTF	†
SPD34C	1.57 (39.9)	.88 (22.4)	1/2 NPTF	†
SPD34S	1.63 (41.4)	--	3/4 - 16 S.A.E.	BOTTOM
SPD34SA	1.63 (41.4)	.88 (22.4)	3/4 - 16 S.A.E.	SIDE

†P & T are on bottom;
A & B are on side.



**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

Installation Information

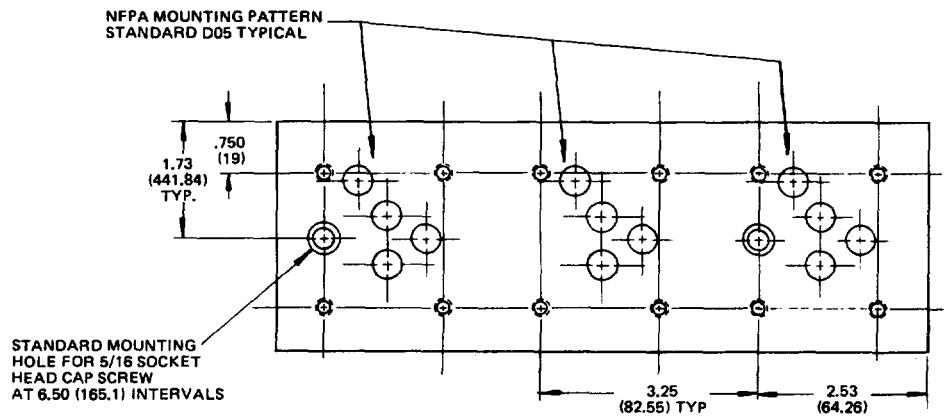
ACCESSORIES

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

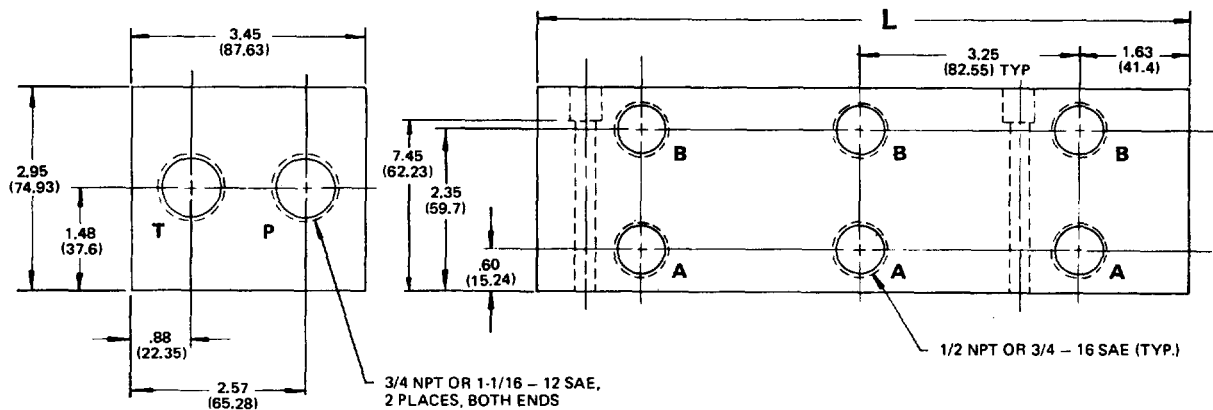
MULTI-STATION MANIFOLD**

The bolt kit for mounting valves to these manifolds is BK226.

DIMENSION TABLE	
MANIFOLD MODEL	LENGTH
SP2D34A *	6.50 (165.1)
SP3D34A *	9.75 (247.65)
SP4D34A *	13.00 (330.0)
SP5D34A *	16.25 (412.75)
SP6D34A *	19.50 (495.3)



* SP*D34A has NPTF ports.
For SAE ports specify SP*D34SA.

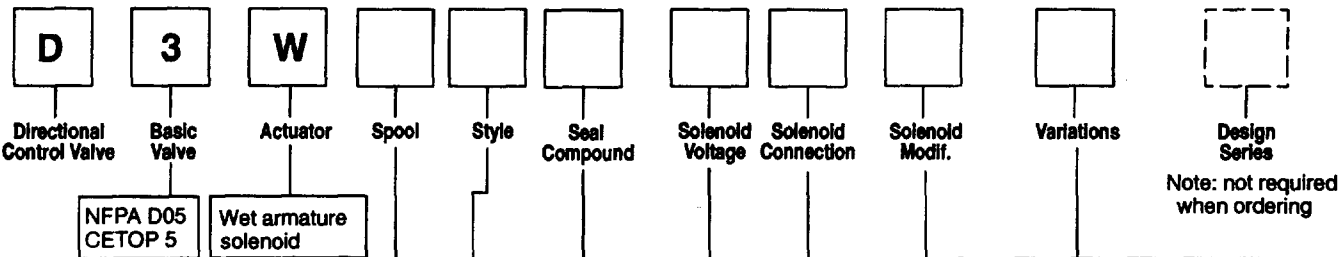


** Not Recommended For Use With D3W Valves That Have Explosion Proof Solenoids.

Series D3W

Solenoid Operated
Valves, Directional Control

Ordering Information



NFPA D05
CETOP 5

Wet armature solenoid

Code	Type
N	Nitrile
V	Viton

Code	Symbol	Code	Symbol
1		8*	
2		10	
3		11	
4		12	
5		14	
6		15	
7		16	

* 8 spool have closed crossover

Code	Description
♦ D	120 VDC
♦ E	24/60 - 24/50 VAC
J	24 VDC
K	12 VDC
L	6 VDC
♦ Q	100/50 VAC
♦ R	24 VDC / 60 Hz
T	240/60 - 220/50 VAC
Y	120/60 - 110/50 VAC
♦ Z	250 VDC

♦ Not Available with CSA

Code	Description
Omit	Standard valve
1	Conduit Connection
4	CSA Approval **
5	Signal lights — D, K, T, Y, Z only
6	Manaplug sgl. sol. 3 dbl. sol. 5
56	Signal lights w/manaplug — D, E, J, T, Y, Z only
630	Manaplug sgl. sol. 5 pin

** Valve is derated with this option.
See catalog for technical data.

Code	Description
Omit	Standard lead wire solenoids
C	Hazardous Location
D#	Explosion Proof - CENELEC
F	Low wattage coil - "Y" only
H	High pressure tube (210 Bar)
M#	Explosion Proof - M.S.H.A.
P	Extended manual override
R	Repairable manual override
S	Soft Shift
U#	Explosion Proof - UL & CSA

Explosion Proof - coils are 60 Hz at
std. voltage. Dual rating Std. not available.

Code	Description
B†	Sgl. solenoid, 2 position, spring offset. P to A and B to T in offset position.
C	Dbl. solenoid, 3 position, spring centered.
D†	Dbl. solenoid, 2 position, detent.
E	Sgl. solenoid, 2 position, spring offset to center. P to B and A to T when energized.
F	Sgl. solenoid, 2 position. Spring offset, energized to center. Position spool spacer on a side. P to A and B to T in spring offset position.
H†	Sgl. solenoid, 2 position, spring offset. P to B and A to T in offset position.
K	Sgl. solenoid, 2 position. Spring offset to center. A side. P to A and B to T when energized.
M	Sgl. solenoid, 2 position, spring offset, energized to center position. Spool spacer on B side. P to B and A to T in spring offset position.

† Is available with 1, 2, 4, 10 and 11 spools only

Code	Description
C	Conduit Cavity
E	Explosion proof protection class see solenoid modification
♦ P	Hirschmann with standard plug
S	Spade lug
♦ W	Hirschmann without plug

♦ Not Available with CSA

Valve Weight: Single Solenoid 3.9 kg (8.5 lbs.)
Double Solenoid 4.5 kg (10 lbs.)

Subplate Note: See "Installation Information, Directional Control Valves" section of this catalog for subplate drawing and model numbers.

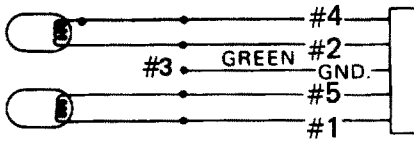
Standard Bolt Kit: BK226

For additional information - call your local
Parker Fluidpower Motion & Control Distributor.

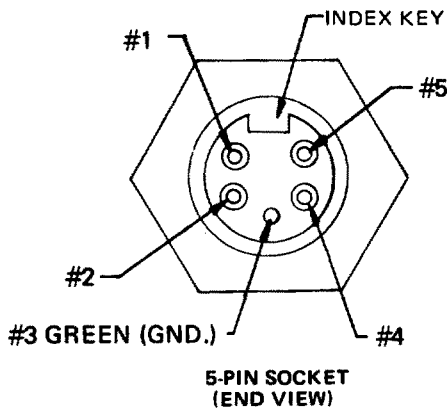
Technical Information

ACCESSORIES

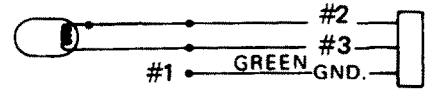
"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"



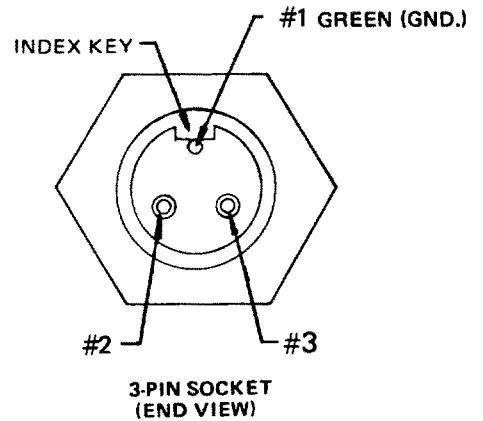
WIRING DIAGRAM
(5-PIN MANAPLUG)



5-PIN SOCKET
(END VIEW)



WIRING DIAGRAM
(3-PIN MANAPLUG)



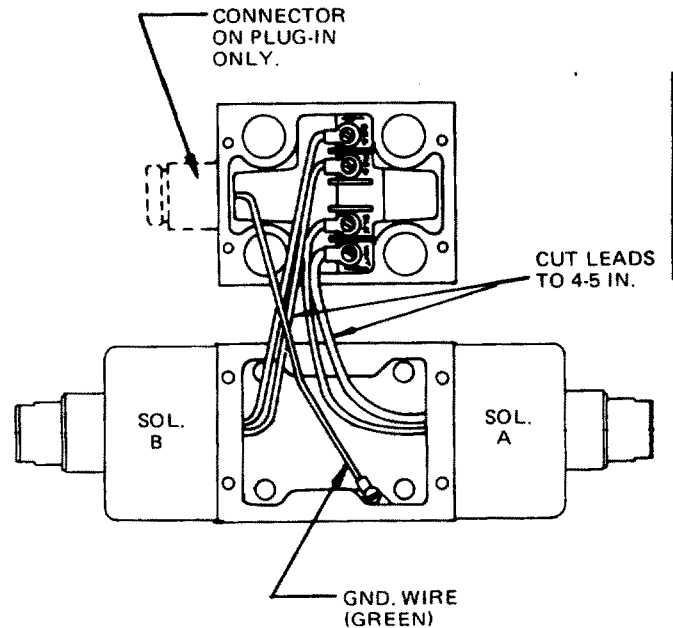
3-PIN SOCKET
(END VIEW)

WIRING INSTRUCTIONS

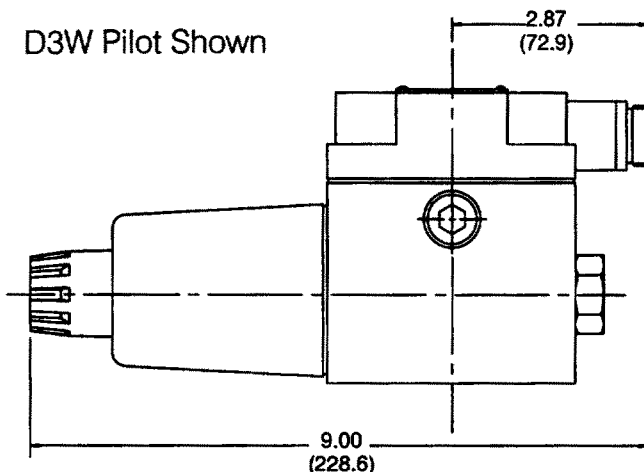
SINGLE SOLENOID – 5-Pin Manaplug (Variation 30). The white (#1) and black (#5) wires complete the circuit for valves with solenoid "A". The red (#2) and orange (#4) wires complete the circuit for valves with solenoid "B".

DOUBLE SOLENOID – 5-Pin Manaplug (Standard). The black (#5) and white (#1) wires complete the circuit for solenoid "B". The orange (#4) and red (#2) complete the circuit for solenoid "A".

SINGLE SOLENOID–3-Pin Manaplug (Standard)
The black (#2) and white (#3) wires complete the circuit for the solenoid.



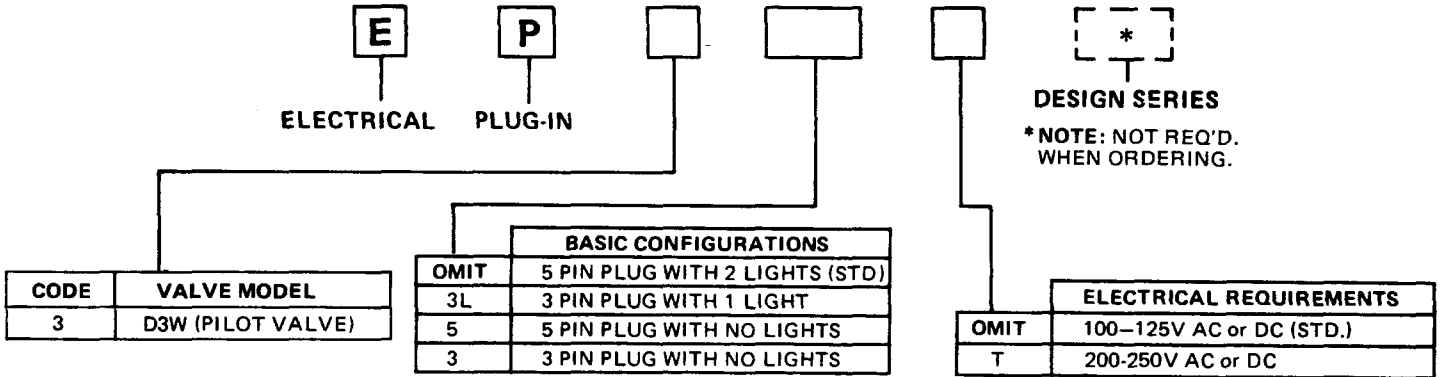
D3W SHOWN



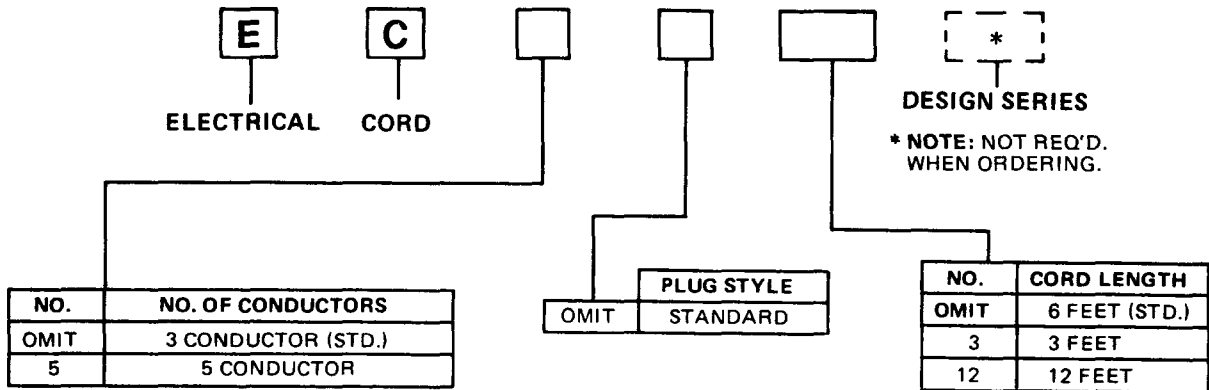
Ordering Information

ACCESSORIES

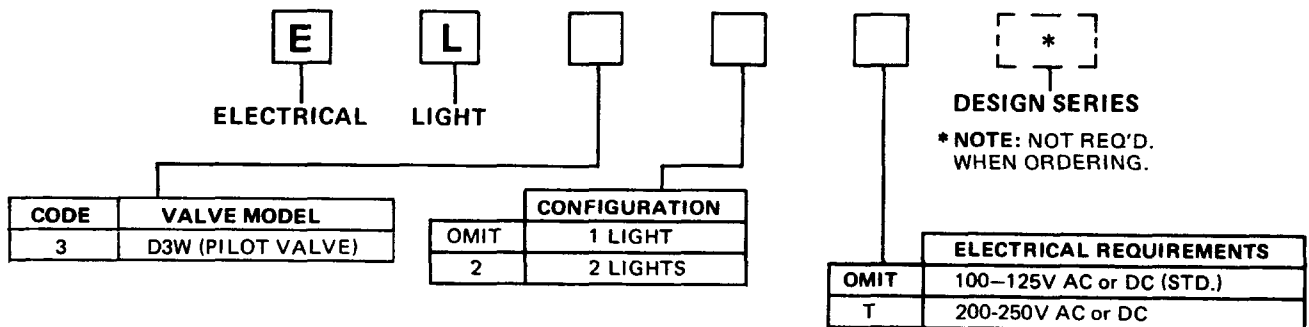
ELECTRICAL LIGHTS – ELECTRICAL PLUG-IN – ELECTRICAL CORDS



ELECTRICAL CORDS



INDICATOR LIGHTS



**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

General Description

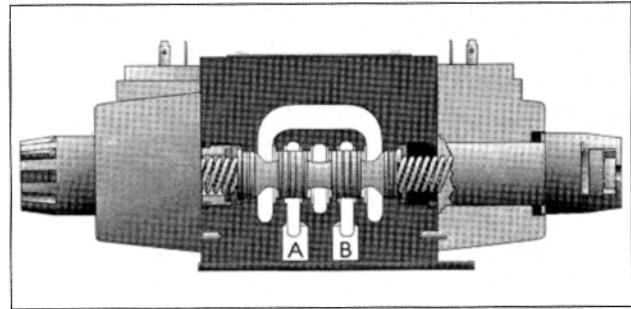
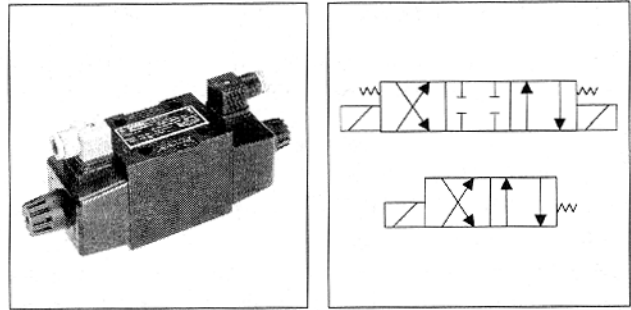
Parker's D3DW is a five chamber, solenoid operated, 4-way, 2 or 3 position, spool type, hydraulic directional control valve. They are direct operated using wet armature solenoids. Suitable for either manifold or subplate mounting.

Features

- **World Design** — Part available worldwide.
- **Mounting Bolts Below Center Line of Spool** — Minimizes spool binding problems.
- **Five Chamber Design** — Eliminates pressure spikes in tubes and provides longer valve life.
- **Increased Flow and Pressure Rating** — Increased flow in compact valve.

Specifications

Sizes and Interfaces	DIN NG10 CETOP 05 NFFA-D05		
Mounting Pattern	DIN 24340 A 10 ISO 4401-A10-AC-05-4-A CETOP RP121 H-4, 2-4-R05 NFFA D05		
Flow	Up to 120 L/M (32 GPM) see table for spools 1, 4, 9 and 20, 2 (Δp -Q)-curves and switching limits		
Operating Pressure	NFFA C/99/ 310 Bar (4500 PSI) Max. oper. pressure 350 Bar (5000 PSI) Tank AC 100 Bar (1480 PSI), DC 150 Bar (2220 PSI)		
Response Time (ms) at 140 Bar (2000 PSI) & 76 L/M (20 GPM)	Solenoid Type	Pull-In	Drop-Out
	AC	130	100
	DC	162	110

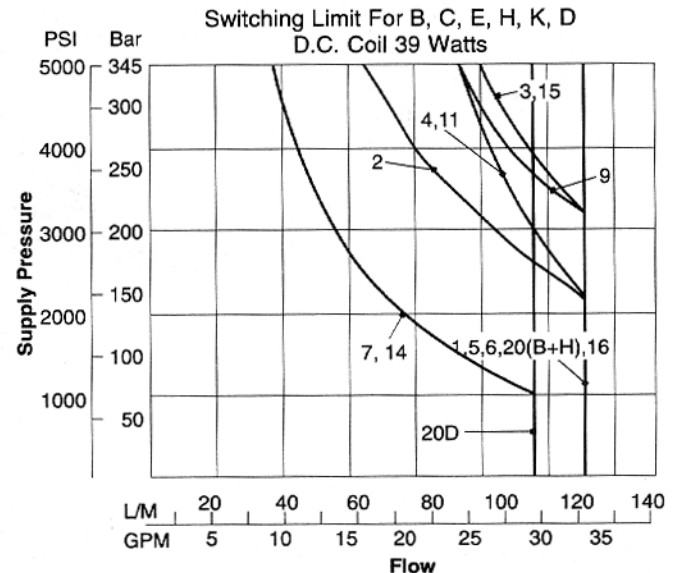
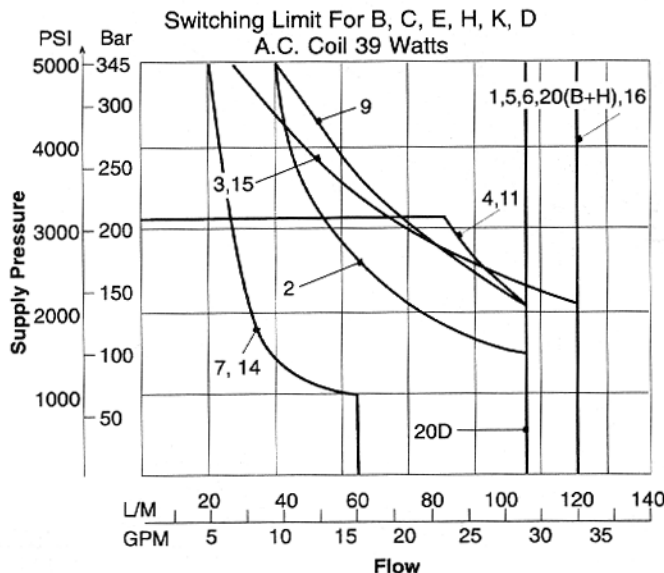


Electrical Specifications

Solenoid Code	Voltage ($\pm 10\%$)	Holding Power W	Holding Current A	* In Rush A
K	12 V DC	42	3.5	—
J	24 V DC	42	1.75	—
Y	110 V 50 Hz	45	1.10	3.8
	120 V 60 Hz	46	.96	3.85
T	220 V 50 Hz	45	.55	1.9
	240 V 60 Hz	46	.48	1.8

*31.5mm
@ 4.5mm

Switching Limit Charts



Technical Information

D3DW Series Pressure Drop vs. Flow

The chart to the right provides the flow vs. pressure drop curve references for D3DW Series valves by spool type.

Example:

Find the pressure drop at 20 GPM or a D3DW with a number 1 spool.

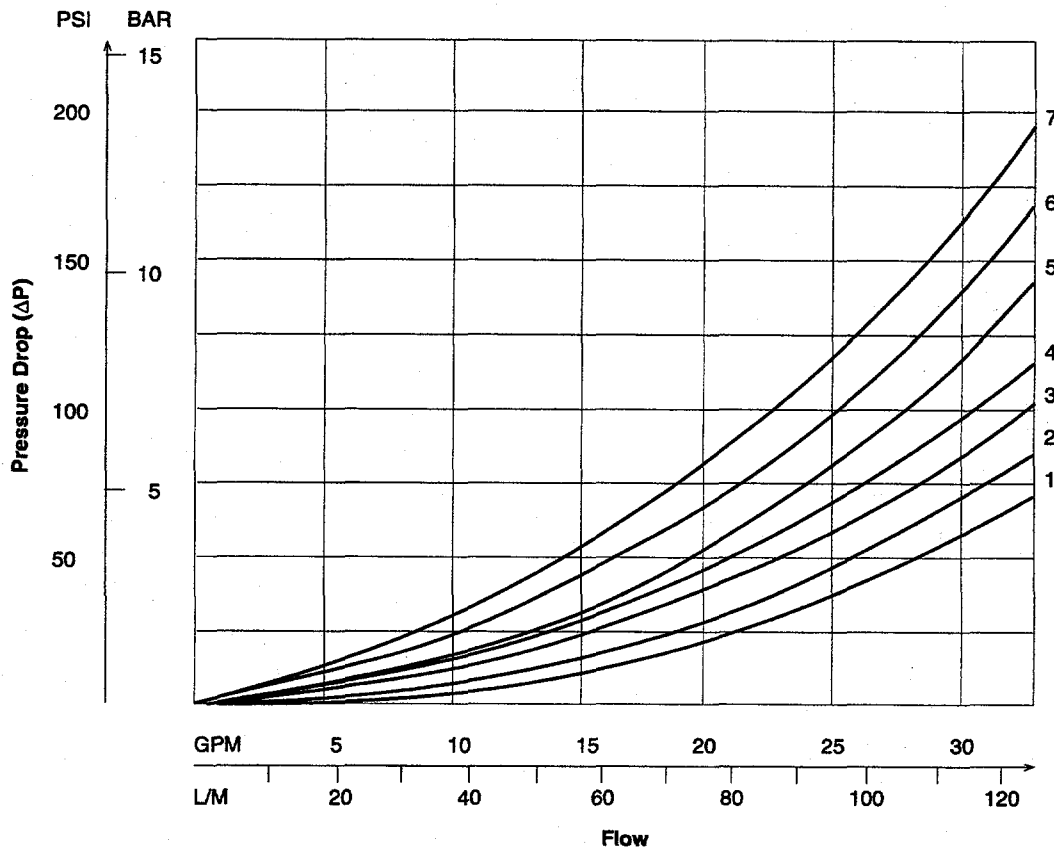
Using the top chart, locate the numeral 1 in the spool number column. To the right of the numeral 1, locate the numeral 6 in the P-A column, and the numeral 3 in the B-T column.

Using the bottom graph, locate curve 6; the pressure drop P-A is 65 PSI at 20 GPM. Then using curve 3, the pressure drop B-T at 10 GPM is 15 PSI. Total pressure drop through the valve is then 65 + 15 = 80 PSI.

Note: Pressure drops should be checked for all flow paths, especially when using non-symmetrical spools (spools 3, 5, 7, 14, 15, 16,) and unbalanced actuators.

D3DW Pressure Drop Reference Chart											
Curve Chart											
Spool No.	Shifted				Center Condition						
	P-A	P-B	B-T	A-T	(P-T)	(B-A)	(A-B)	(P-A)	(P-B)	(A-T)	(B-T)
1	6	6	3	3	-	-	-	-	-	-	-
2	6	6	1	1	4	3	3	4	4	1	1
3	6	6	3	1	-	-	-	-	-	3	-
4	6	6	1	1	-	-	-	-	-	1	1
5	6	6	3	3	-	-	-	5	-	-	-
6	6	6	3	3	-	5	7	6	5	-	-
7	6	6	1	3	7	-	-	-	-	-	-
8	5	5	4	4	7	-	-	-	-	-	-
9	5	5	4	4	7	-	-	-	-	-	-
11	6	6	1	1	-	-	-	-	-	-	-
14	6	6	3	1	7	-	-	-	-	-	-
15	6	6	1	3	-	-	-	-	-	-	4
16	6	6	3	3	-	-	-	-	5	-	-
20	6	6	2	2	-	-	-	-	-	-	-
30	6	6	1	1	-	-	-	-	-	-	-

Pressure Drop Chart



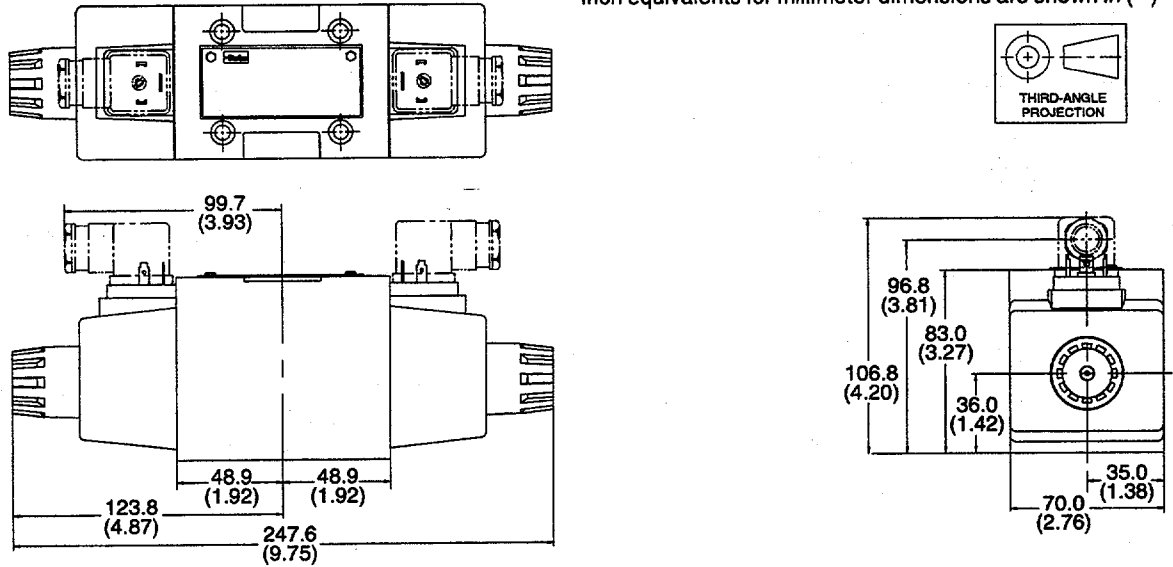
Curves were generated using 100 SSU hydraulic oil. For any other viscosity, pressure drop will change per chart.	VISCOSITY CORRECTION FACTOR							
	Viscosity (SSU)	75	150	200	250	300	350	400
	% of ΔP (Approx.)	93	111	119	126	132	137	141

**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

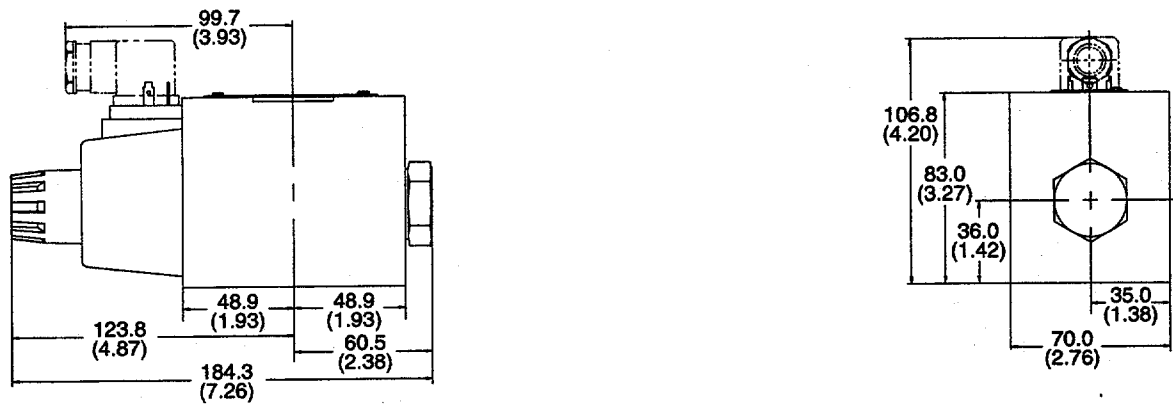
Dimensions

Hirschmann Connector, A.C. Solenoid Double

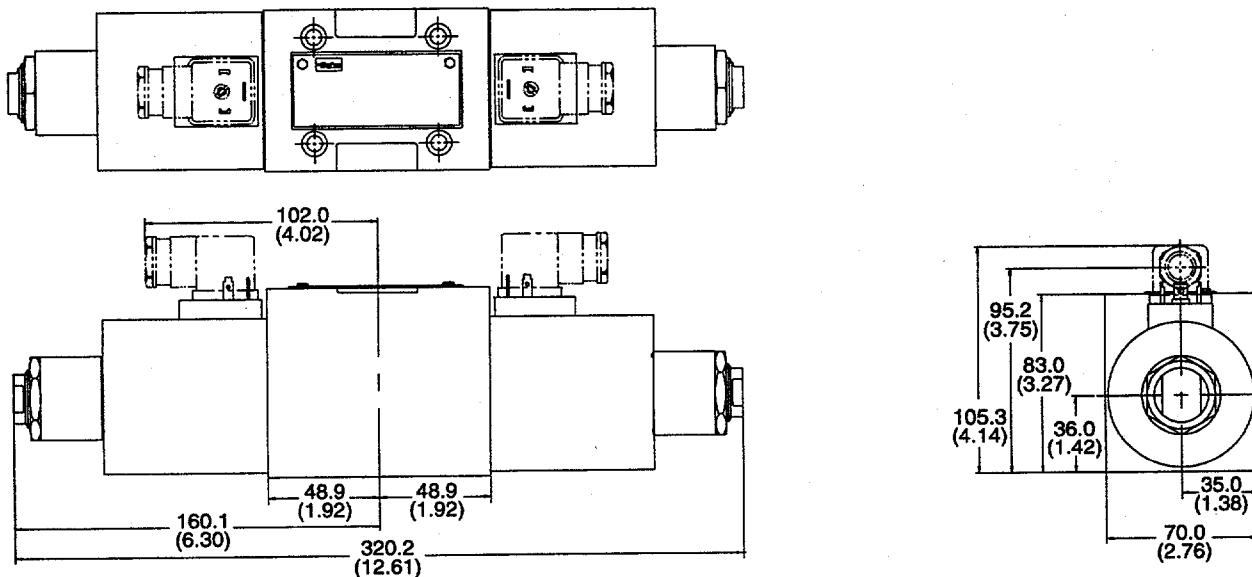
Inch equivalents for millimeter dimensions are shown in (**)



Hirschmann Connector, A.C. Solenoid Single

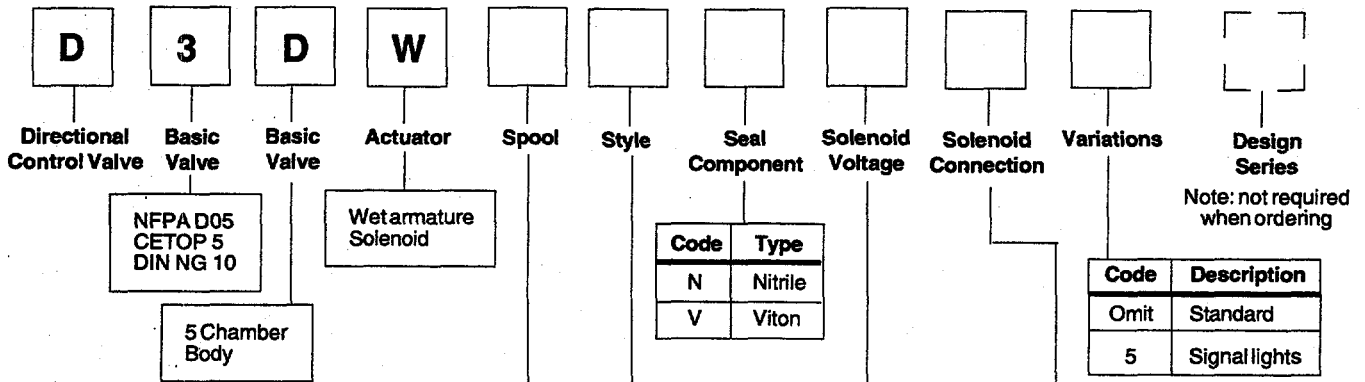


Hirschmann Connector, D.C. Solenoid Double



Directional Control Valves Series D3DW

Ordering Information



Code	Symbol	Code	Symbol
1		10	
2		11	
3		12	
4		14	
5		15	
6		16	
7		20*	
8*, 9**		30**	

* 8 & 20 spool have closed crossover
** 9 & 30 spool have open crossover

Code	Description	Symbol
B*	Sgl. solenoid, 2 position, spring offset, P to A and B to T in offset position.	
C	Dbl. solenoid, 3 position, spring centered.	
D*	Dbl. solenoid, 2 position, detent.	
E	Sgl. solenoid, 2 position, spring offset to center, P to B and A to T when energized.	
H*	Sgl. solenoid, 2 position, spring offset. P to B and A to T in offset position.	
K	Sgl. solenoid, 2 position, Spring offset to center. A side. P to A and B to T when energized.	

* is available with 20 and 30 spools only.

Valve Weight:

Single AC Solenoid	4.3 kg (9.5 lbs.)
Double AA Solenoid	5.0 kg (11.0 lbs.)
Single DC Solenoid	5.3 kg (11.6 lbs.)
Double DC Solenoid	7.3 kg (16.0 lbs.)



This condition varies with spool code

**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

Series D3

Mechanically Operated
Valves, Directional Control

Technical Information

ENGINEERING PERFORMANCE DATA

M'T'G. PATTERN:	NFPA D02-3/8"
MAXIMUM PRESSURE:	3000 PSI (205 Bar)
MAXIMUM TANK LINE PRESSURE:	
LEVER, KNOB, THR'D. ROD	
*CAM	500 PSI (34 Bar)
NOMINAL FLOW:	12 GPM (45 L/MIN.)
MAXIMUM FLOW:	See Quick Reference Data Chart.

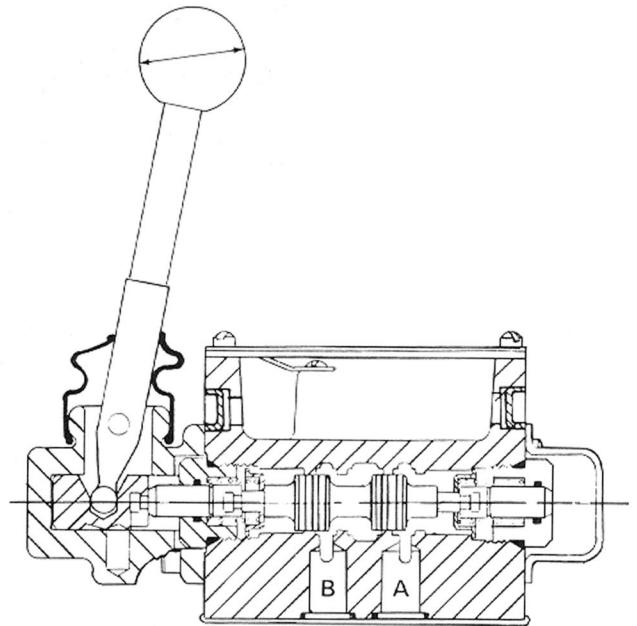
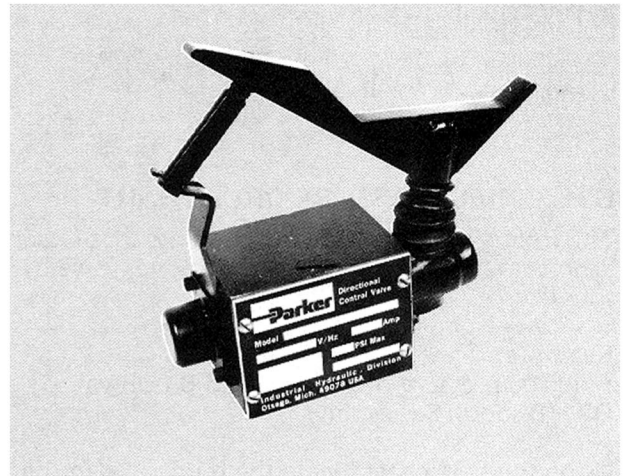
* 25 PSI Tank Line Max.

Mechanical Shift Forces Required

To depress cam	18 lbs. (80 NEWTONS)
To depress knob	14 lbs. (62 NEWTONS)
To depress threaded rod	14 lbs. (62 NEWTONS)
To shift lever	4 lbs. (18 NEWTONS)
To depress cam lever	4 lbs. (18 NEWTONS)

CAM PLUNGER TRAVEL

Total spool travel is .356 INCH (9).
Provision is made for an additional .070 INCH (1.78) cam overtravel.



D3L**C AS SHOWN

QUICK REFERENCE DATA CHART

Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI	Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI
D3*1		20	D3*6		20
D3*2		20	D3*8		12
D3*4		20	D3*10		4
			D3*11		20

Series D3

Mechanically Operated
Valves, Directional Control

Technical Information

ENGINEERING PERFORMANCE DATA

D3* SERIES PRESSURE DROP CHART

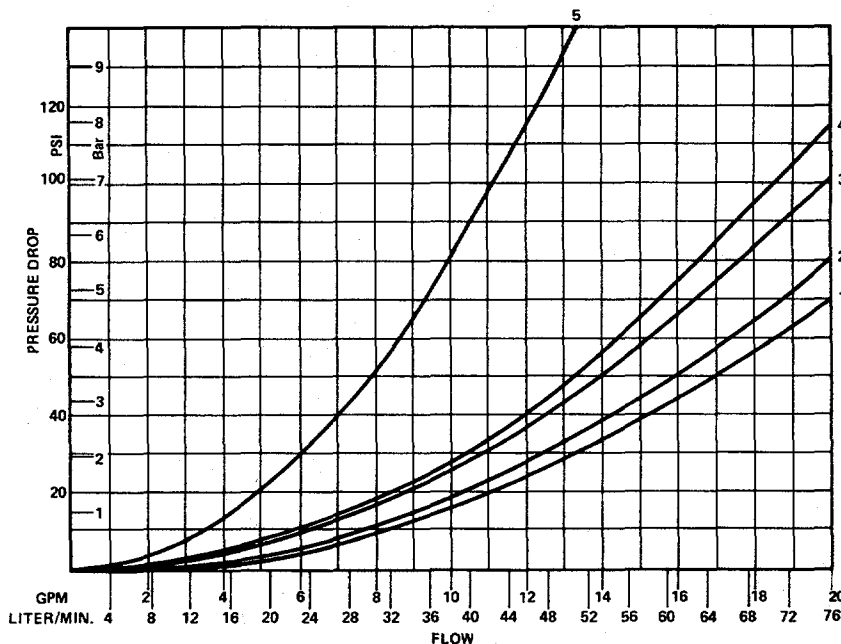
The following chart provides the flow vs. pressure drop curve reference for the D3* Series valve by spool type.

Example:

Find the pressure drop from P to B using a D3* (8 spool) Series valve.

Using the D3* chart locate the numeral 8 in the Spool Code column. To the right of the numeral 8, locate the numeral 4 in the P-B column. A pressure drop (ΔP) from P to B using a D3* valve would be obtained on curve number 4.

Spool Code	Curve Number				
	P-A	P-B	P-T	A-T	B-T
1	4	4	—	3	3
2	3	3	2	2	2
3	4	4	—	1	3
4	4	4	—	1	1
5	3	4	—	3	3
6	3	3	—	3	3
7	4	3	5	3	2
8	4	4	5	3	2
10	4	4	—	—	—
11	4	4	—	3	3



PRESSURE DROP vs. FLOW

Curves were generated using 100 SSU hydraulic oil. For any other viscosity pressure drop will change as per chart.	VISCOSITY CORRECTION FACTOR							
	Viscosity (SSU)	75	150	200	250	300	350	400
	Percentage of ΔP (Approx.)	93	111	119	126	132	137	141

For additional information – call your local
Parker Fluidpower Motion & Control Distributor.

Technical Information

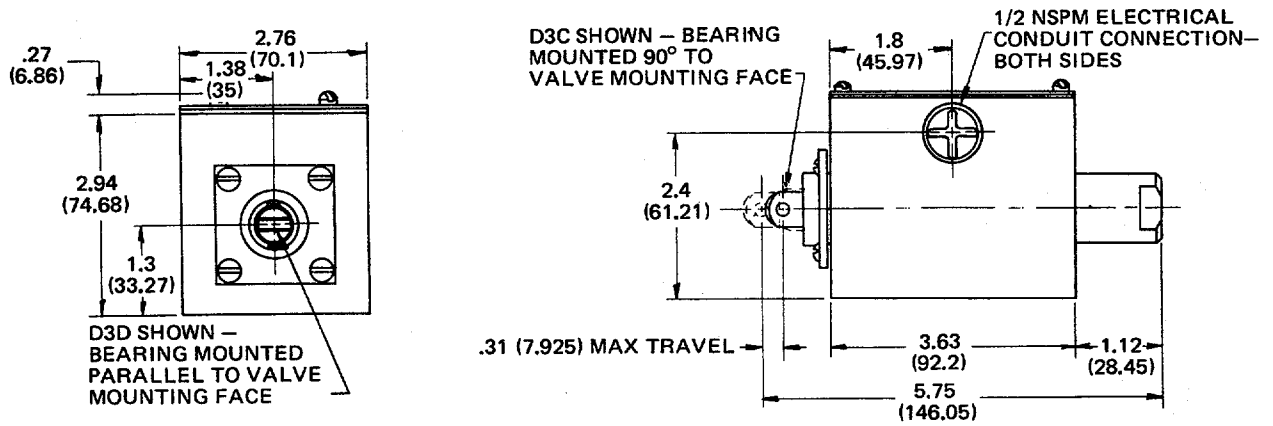
Series D3

Mechanically Operated
Valves, Directional Control

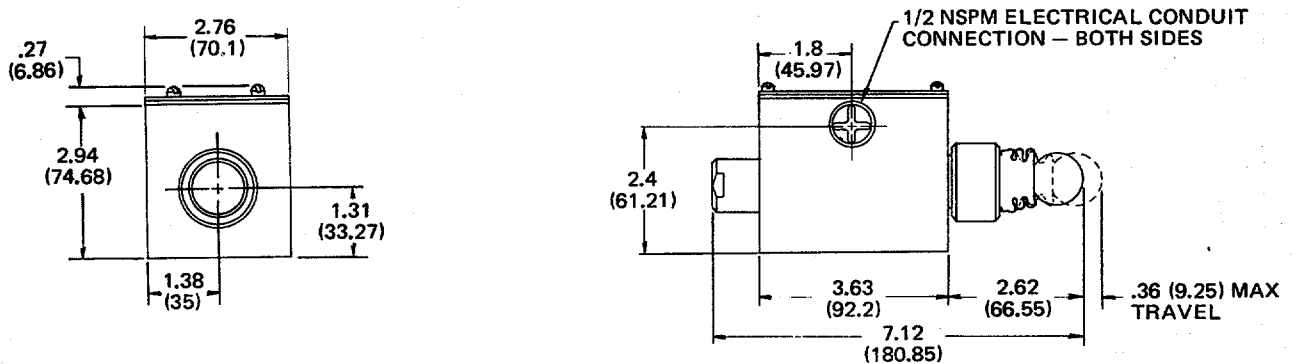
DIMENSIONS

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

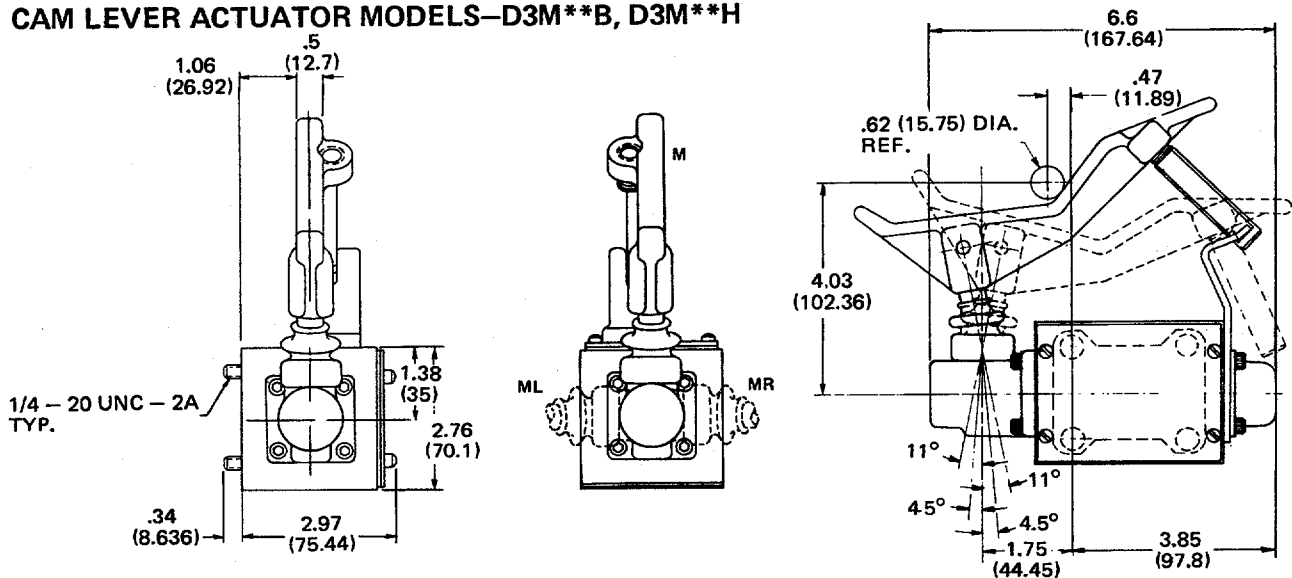
CAM OPERATOR MODELS—D3C*B, D3C*H



KNOB ACTUATOR MODELS—D3K**B, D3K**C, D3K**D, D3K**H, D3K**N



CAM LEVER ACTUATOR MODELS—D3M**B, D3M**H



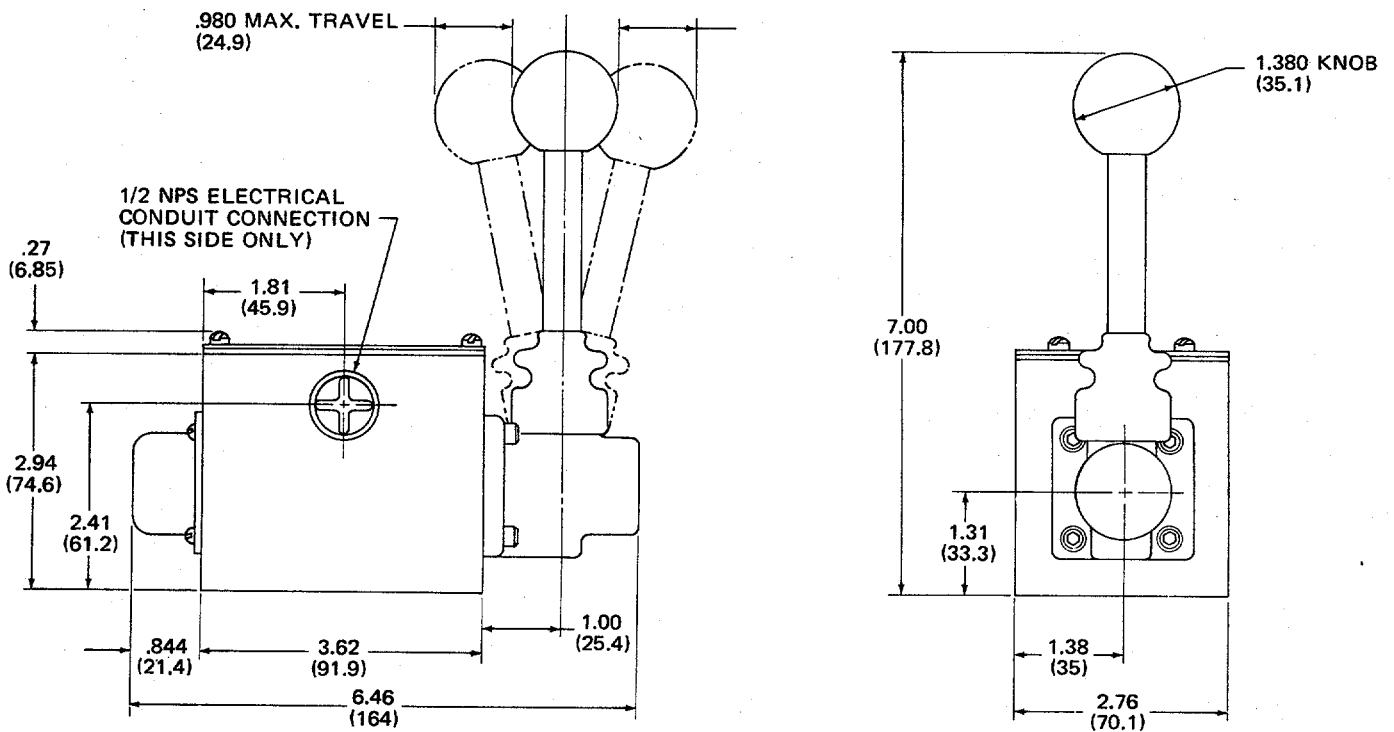
Technical Information

Series D3 Mechanically Operated Valves, Directional Control

DIMENSIONS

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

LEVER ACTUATOR MODELS—D3L**B, D3L**C, D3L**D, D3L**H, D3L**N

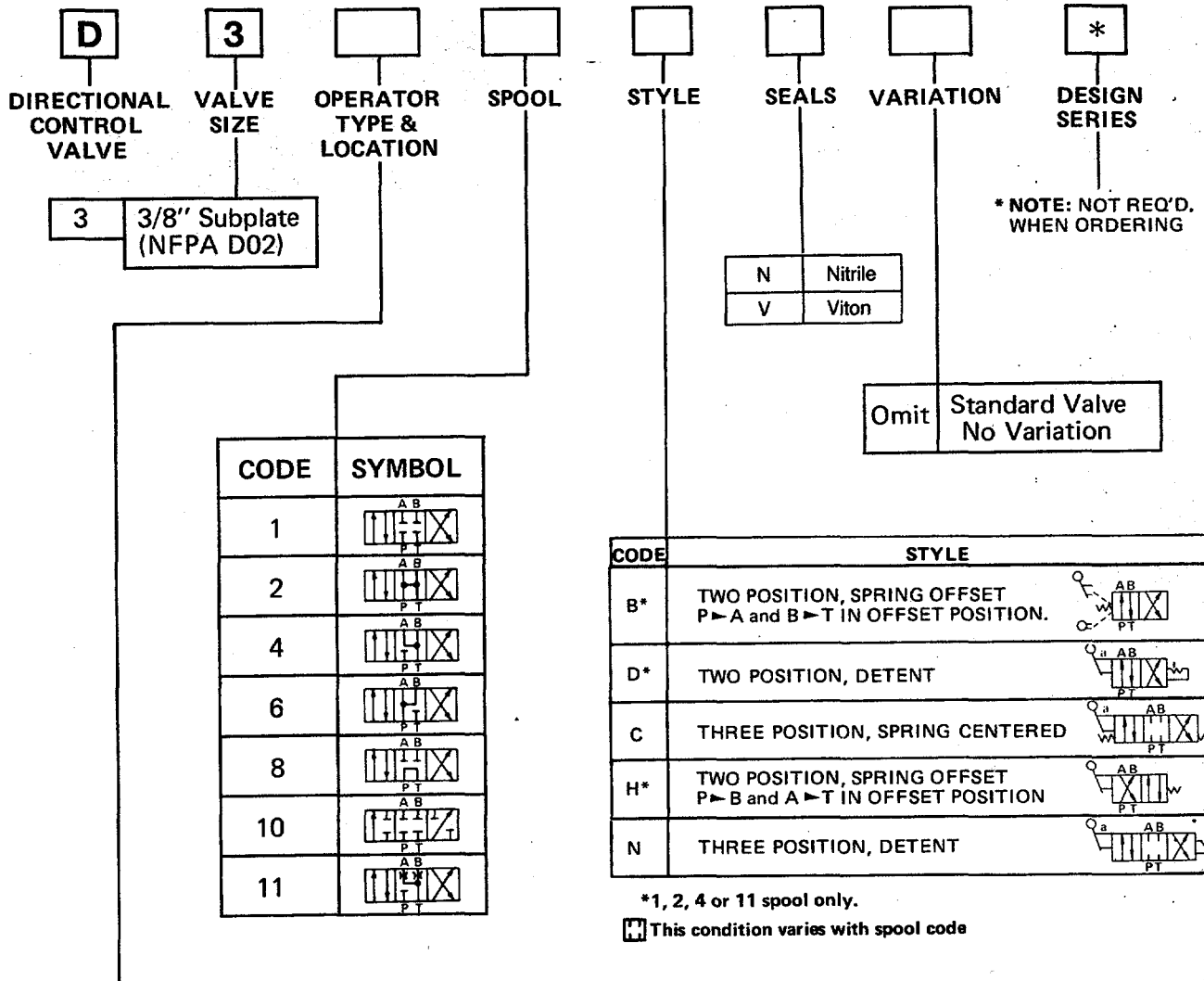


For additional information – call your local
Parker Fluidpower Motion & Control Distributor.

Ordering Information

Series D3 Mechanically Operated Valves, Directional Control

Subplate Note: See "Installation Information, Directional Control Valves" section of this catalog for subplate drawing and model numbers.



Code	Operator Type	Operator Location (A or B Port End) For Valve Style				
		B	C	D	H	N
C	Cam (90° to Mounting Surface)	A	—	—	B	—
D	Cam (Parallel to Mounting Surface)	A	—	—	B	—
L	Lever (Standard)	B	B	B	B	B
LB	Lever (Alternate)	A	A	A	A	A
K	Knob (Standard)	B	B	B	B	B
KB	Knob (Alternate)	A	A	A	A	A
T	Threaded Rod (Standard)	B	B	B	B	B
TB	Threaded Rod (Alternate)	A	A	A	A	A
M	Cam Lever (Standard)	B	—	—	A	—
ML	Cam Lever (Alternate)	B	—	—	A	—
MR	Cam Lever (Alternate)	B	—	—	A	—

UNIT WEIGHT:

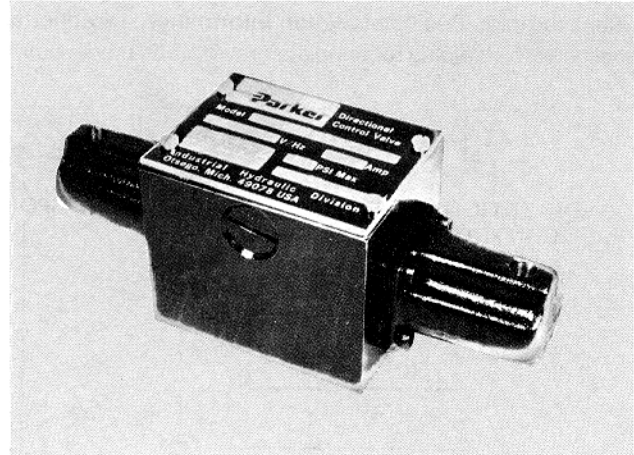
VALVE	WEIGHT
D3C****	8.0 LBS. (3.62 Kg)
D3D****	8.0 LBS. (3.62 Kg)
D3L****	11.0 LBS. (4.98 Kg)
D3K****	8.5 LBS. (3.85 Kg)
D3T****	8.5 LBS. (3.85 Kg)
D3M****	11.0 LBS. (4.98 Kg)

Technical Information

Series D3A

Air Operated
Valves, Directional Control

ENGINEERING PERFORMANCE DATA



M'T'G. PATTERN:	NFPA D02-3/8"
MAXIMUM PRESSURE:	Operating 3000 PSI (205 Bar)
	Tank Line 1500 PSI (102 Bar)
NOMINAL FLOW:	12 GPM (45 L/M)
MAXIMUM FLOW:	See chart below.
PILOT PRESSURE:	Air Minimum 50 PSI (3.4 Bar)
	Air Maximum 150 PSI (10.2 Bar)
HYDRAULIC MAXIMUM:	500 PSI (34.0 Bar)
PILOT PISTON DIA.:	.994 in. (25.25 mm)

SHIFT VOLUME

The air pilot chamber required a volume of .323 in.³ (17.73 cc) for complete shift.

PILOT PISTON AREA

The pilot piston area is .781 in.² (19.84 mm²). A pilot pressure of 50 PSI will provide 39 lbs. of spool shifting force.

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 (C_v).

QUICK REFERENCE DATA CHART

Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI	Model	Spool Symbol	Maximum Flow (GPM) 3000 PSI
D3A1		20	D3A6		20
D3A2		20	D3A8		12
D3A4		20	D3A11		20

**For additional information – call your local
Parker Fluidpower Motion & Control Distributor.**

Series D3A

Air Operated
Valves, Directional Control

Technical Information

ENGINEERING PERFORMANCE DATA

D3A SERIES PRESSURE DROP CHART

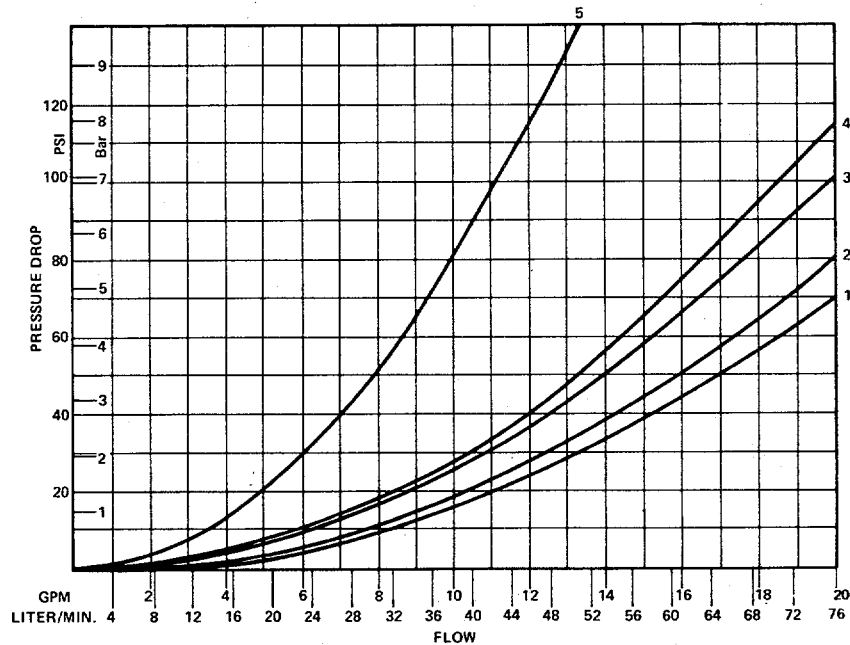
The following chart provides the flow vs. pressure drop curve reference for the D3A Series valve by spool type.

Example:

Find the pressure drop from P to B using a D3A8 (8 spool) Series valve.

Using the D3A chart locate the numeral 8 in the Spool Code column. To the right of the numeral 8, locate the numeral 4 in the P-B column. A pressure drop (ΔP) from P to B using a D3A8 valve would be obtained on curve number 4.

D3A Pressure Drop Curve Reference Chart					
Spool Code	Curve Number				
	P-A	P-B	P-T	A-T	B-T
1	4	4	-	3	3
2	3	3	2	2	2
4	4	4	-	1	1
6	3	3	-	3	3
8	4	4	5	3	2
11	4	4	-	3	3



PRESSURE DROP vs. FLOW

Curves were generated using 100 SSU hydraulic oil. For any other viscosity pressure drop will change as per chart.	VISCOSITY CORRECTION FACTOR							
	Viscosity (SSU)	75	150	200	250	300	350	400
	Percentage of ΔP (Approx.)	93	111	119	126	132	137	141

Series D3A

Air Operated
Valves, Directional Control

Technical Information

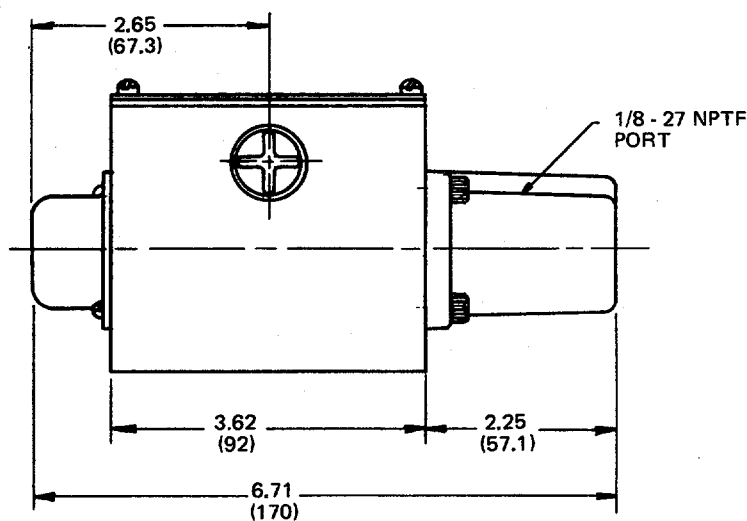
DIMENSIONS

"MILLIMETER EQUIVALENTS FOR INCH DIMENSIONS ARE SHOWN IN (**)"

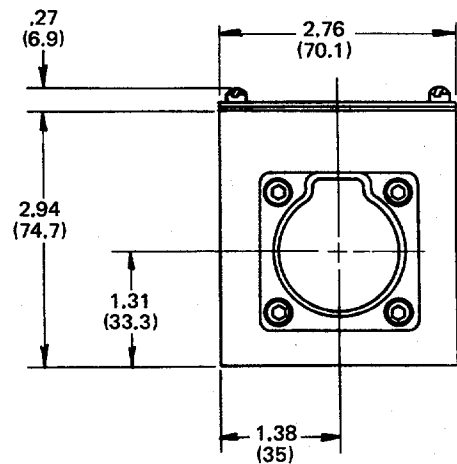
AIR OPERATOR

D3A SERIES

SINGLE OPERATOR MODELS- D3A*B, D3A*H

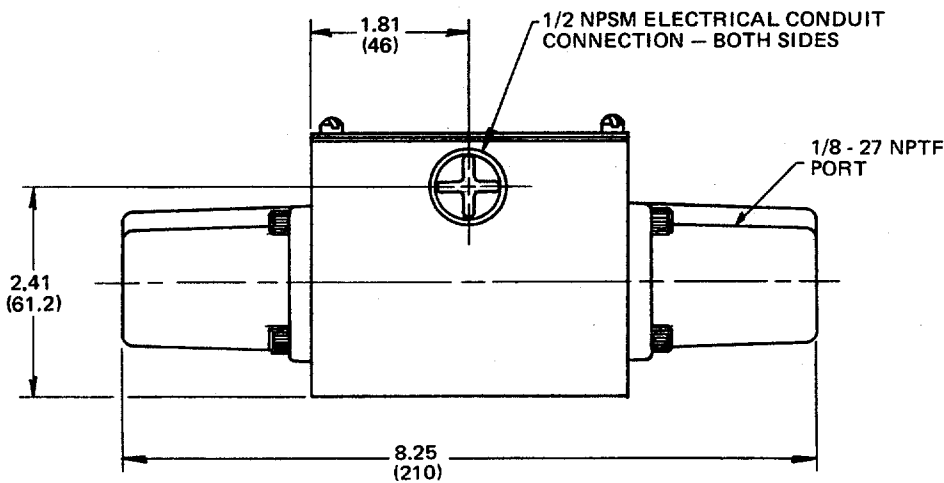


SINGLE ACTUATOR MODEL

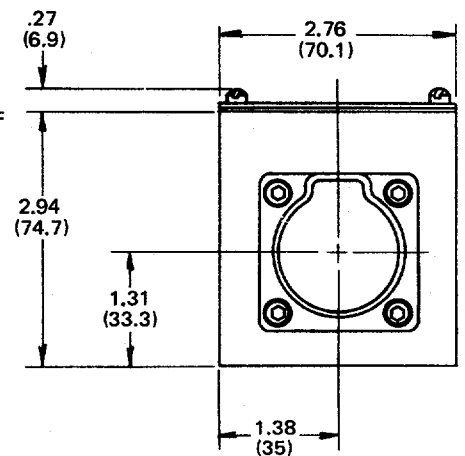


D3A SERIES

DOUBLE OPERATOR MODELS- D3A*C, D3A*D



DOUBLE ACTUATOR MODEL

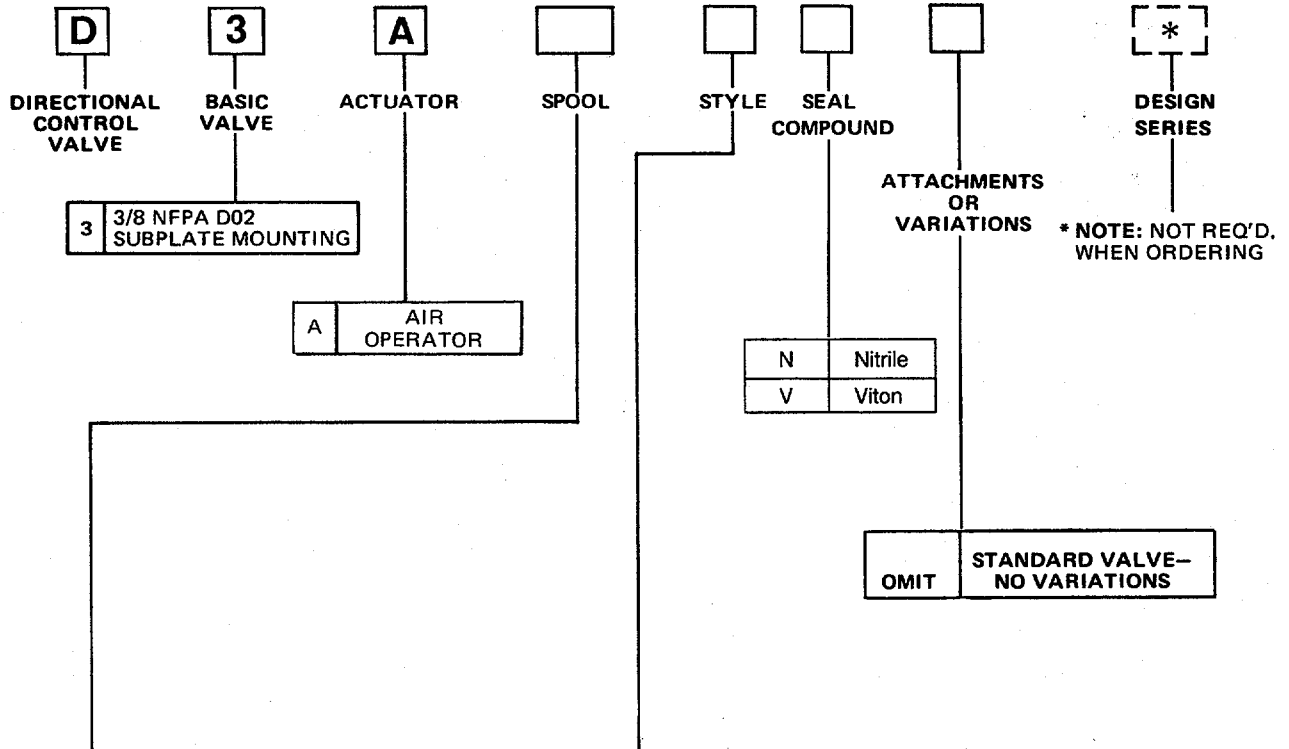


For additional information – call your local
Parker Fluidpower Motion & Control Distributor.

Series D3A

Air Operated
Valves, Directional Control

Ordering Information



CODE	SYMBOL
1	
2	
4	
6	
8	
11	

CODE	STYLE
B*	SINGLE OPERATOR TWO POSITION, SPRING OFFSET. P ▶ A and B ▶ T IN OFFSET POSITION.
C	DOUBLE OPERATOR THREE POSITION, SPRING CENTERED
D*	DOUBLE OPERATOR TWO POSITION, DETENT
H*	SINGLE OPERATOR, TWO POSITION SPRING OFFSET. P ▶ B and A ▶ T IN OFFSET POSITION.

*Available with 1, 2, 4, 11 spools only.
 This condition varies with spool code

Subplate Note: See "Installation Information, Directional Control Valves" section of this catalog for subplate drawing and model numbers.

UNIT WEIGHT:
Single Solenoid 8.5 lbs. (3.9 kg.)
Double Solenoid 10 lbs. (4.5 kg.)

Series D3

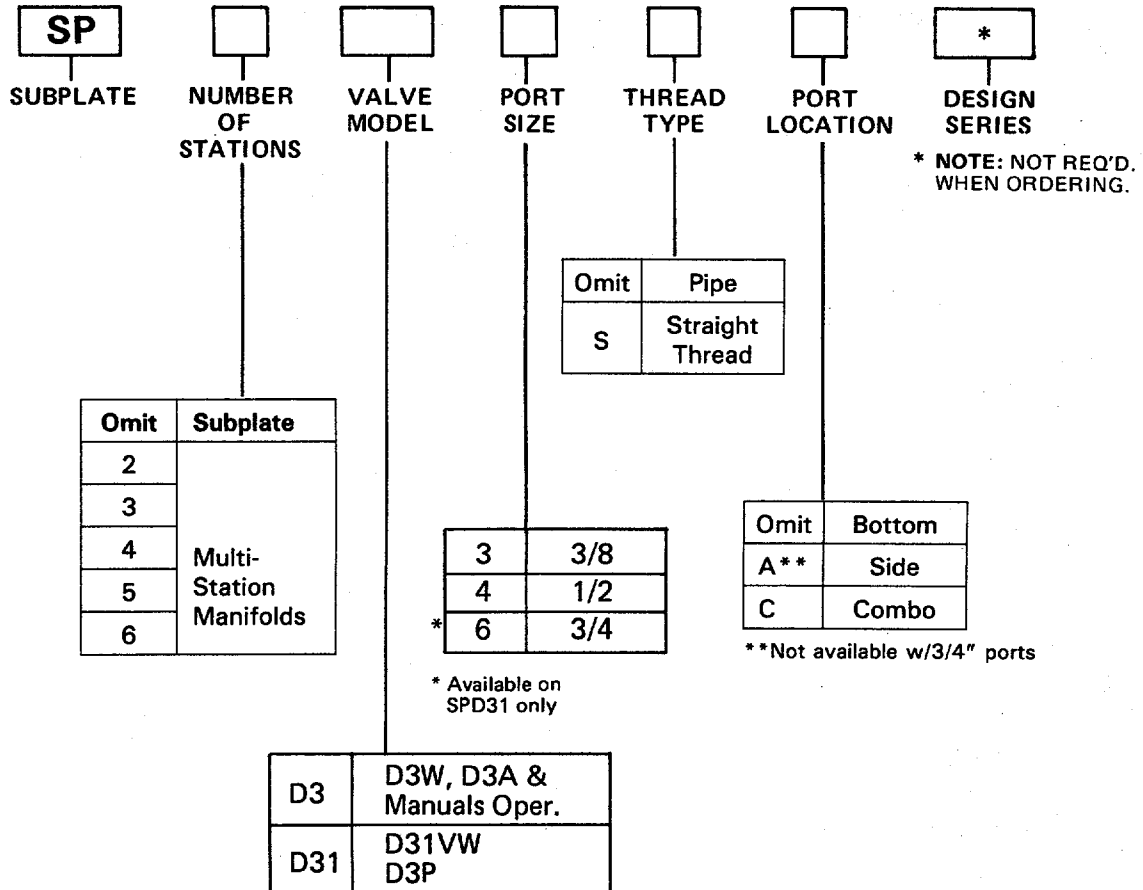
Subplates
and Manifolds

Ordering Information

ACCESSORIES

SUBPLATES AND MANIFOLDS

Bolt kit for mounting valves to subplate is BK226.



AVAILABLE SUBPLATES & MANIFOLDS UNIT WEIGHTS:

SPD33	5 LBS.
SPD33A	5 LBS.
SPD33C	5 LBS.
SPD34	5 LBS.
SPD34A	5 LBS.
SPD34C	5 LBS.
SPD314	5 LBS.
SPD316	5 LBS.
SP2D34A	7.5 LBS.
SP3D34A	11.5 LBS.
SP4D34A	15.0 LBS.
SP5D34A	19.0 LBS.
SP6D34A	23.0 LBS.

For additional information – call your local
Parker Fluidpower Motion & Control Distributor.

Ordering Information

ACCESSORIES

BOLT KITS

Kit No.	Used On	Bolt Spec.*	Bolt Torque
BK29	D3 + (2 MANAPAKS = 3.75")	1/4-20 x 6"	12 Ft. Lbs.
BK30	D3 + (3 MANAPAKS = 5.50")	1/4-20 x 7-3/4"	12 Ft. Lbs.
BK31	D3 + (1 MANAPAK = 1.75")	1/4-20 x 4"	12 Ft. Lbs.
BK32	D3 + (2 MANAPAKS = 3.50")	1/4-20 x 5-3/4"	12 Ft. Lbs.
BK33	D3 + (3 MANAPAKS = 5.25")	1/4-20 x 7-1/2"	12 Ft. Lbs.
BK61	D3 + (1 MANAPAK = 2.00")	1/4-20 x 4-1/4"	12 Ft. Lbs.
BK62	D3 + (2 MANAPAKS = 4.00")	1/4-20 x 6-1/4"	12 Ft. Lbs.
BK63	D3 + (3 MANAPAKS = 6.00")	1/4-20 x 8-1/4"	12 Ft. Lbs.
BK80	D3W w/MANAPLUG	1/4-20 x 2-1/4"	12 Ft. Lbs.
BK81	D3W w/MANAPLUG + (1 MANAPAK = 1.75")	1/4-20 x 4"	12 Ft. Lbs.
BK82	D3W w/MANAPLUG + (2 MANAPAKS = 3.50")	1/4-20 x 5-3/4"	12 Ft. Lbs.
BK83	D3W w/MANAPLUG + (3 MANAPAKS = 5.25")	1/4-20 x 7-1/2"	12 Ft. Lbs.
BK91	D3W w/MANAPLUG + (1 MANAPAK = 2.00")	1/4-20 x 4-1/4"	12 Ft. Lbs.
BK92	D3W w/MANAPLUG + (2 MANAPAKS = 3.75")	1/4-20 x 6"	12 Ft. Lbs.
BK93	D3W w/MANAPLUG + (3 MANAPAKS = 5.50")	1/4-20 x 7-3/4"	12 Ft. Lbs.
BK94	D3W w/MANAPLUG + (2 MANAPAKS = 4.00")	1/4-20 x 6-1/4"	12 Ft. Lbs.
BK95	D3W w/MANAPLUG + (3 MANAPAKS = 6.00")	1/4-20 x 8-1/4"	12 Ft. Lbs.
BK96	D3W w/MANAPLUG + (3 MANAPAKS = 5.75")	1/4-20 x 8"	12 Ft. Lbs.
BK97	D3W + (3 MANAPAKS = 5.75")	1/4-20 x 8"	12 Ft. Lbs.
†BK226	D3	1/4-20 x 2-1/4"	12 Ft. Lbs.

*Use SAE Grade 8 or Better

†Supplied With D3P and D31VW Valves