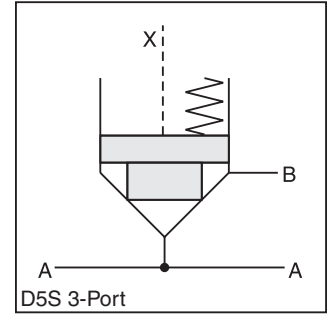
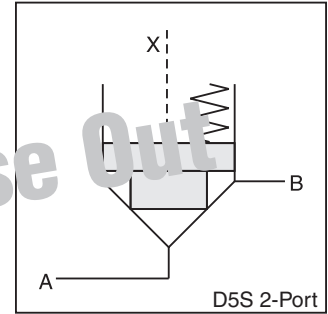


**General Description**

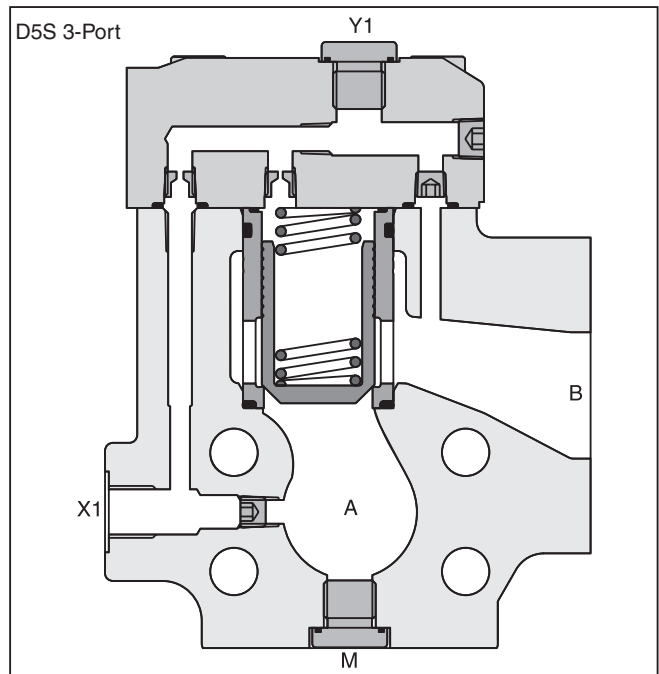
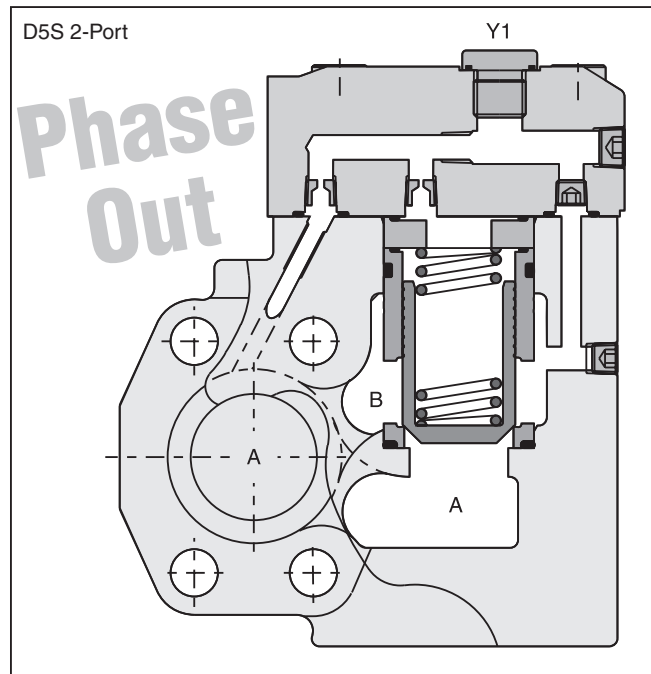
Series D5S seat valves are designed for directional control functions. They enable individual hydraulic solutions for nominal flow up to 800 LPM (211.6 GPM) due to a large variety of poppets, springs and covers, including shuttle valves, stroke limiters, solenoid valves (VV01) and position control.

**Features**

- Leak-free seat valve design.
- 2- and 3-port bodies.  
*Note: 2-port bodies are being phased out.*
- SAE61 flange.
- Numerous pilot options.
- 6 poppet types.
- 4 sizes (SAE 3/4", 1", 1 1/4", 1 1/2").



**A**



**WARNING:** This product can expose you to chemicals including Lead, Nickel (Metallic), or 1,3-Butadiene which are known to the State of California to cause cancer, and Lead or 1,3-Butadiene which is known to the State of California to cause birth defects and other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**A**

**D5S**  
 Seat Valve

Size

Body

Pilot Body Configuration

Pilot Cap

Sleeve

Spool Type

Code	Description
06	SAE 3/4"
08	SAE 1"
10	SAE 1-1/4"
12*	SAE 1-1/2"

\* D5S 3-Port only

Code	Body	Ports
9	3-Port	Seat entry, A; X1, Y1, M = SAE 4
1	2-Port	Seat entry, A; X1, Y1, M = SAE 4
2	2-Port	Annular entry, B; X1, Y1, M = SAE 4

Code	Pilot Oil Line in Body
1	Internal from A
2	Internal from B
3	Internal from A and B
4	External from X1
5	Internal from B, External from X1

Code	Description
1	AA=95%, AB=5%
3	AA=60%, AB=40%

Note: All 2-Port bodies are being phased out.

Code	Body	Ports	X	Y	Z	X-Y	X1	Y1	VV01
<b>Standard</b>									
1	2 and 3-Port	Pilot Oil = Pilot Drain	●	●	●	○	-	●	-
2	2 and 3-Port	Pilot Oil = Pilot Drain	●	●	●	○	-	●	-
3	2-Port	Pilot Oil = Pilot Drain	●	●	●	○	○	●	-
<b>With Solenoid Valve (VV01)</b>									
4	2 and 3-Port	Internal to B	●	○	●	●	-	●	○
5	2-Port	Internal to B	●	○	●	●	○	●	○
6	2 and 3-Port	External Out of Cap	●	○	●	●	-	○	●
7	2-Port	External Out of Cap	●	○	●	●	○	○	●
<b>With Stroke Limiter (not for D5S06)</b>									
A	2 and 3-Port	Pilot Oil = Pilot Drain	●	●	●	-	●	-	-
B	2 and 3-Port	Pilot Oil = Pilot Drain	●	●	-	-	●	-	-
C	2-Port	Pilot Oil = Pilot Drain	●	●	●	-	○	-	-

Code	Size	Poppet Type	Sleeve
1	06, 08, 10, 12	With closed bottom and 15° chamfer (pZ max. = pA +20 Bar (290 PSI))	1
2	06	With 0.8 dia. orifice at the bottom and 15° chamfer	1
	08, 10	With 1.2 dia. orifice at the bottom and 15° chamfer	1
4	06, 08, 10, 12	With closed bottom and 45° chamfer	1, 3
A*	08, 10, 12	Safety spool (for end position control only)	3
B*	08, 10, 12	Throttle spool, 10° chamfer	3
C*	08, 10, 12	Throttle spool, 3° chamfer	3

Key: ○ Open Bore ● Closed Bore ◐ Orifice ∅ 1.2  
 Note: Combination examples provided on pages A238-A242.

\* Springs 2, 3 and 6 only.



Code	Description
Omit	Standard w/o vent function
G0R	12V
G0Q	24V
GAR	98V
GAG	205V
W30	110V 50Hz / 120V 60Hz
W31	220V 50Hz / 240V 60Hz

Code	Description
1	Nitrile
5	Fluorocarbon

Code	Description
Omit	Standard
013	Position Control with Protection

Code	Description	
omit	Standard without Vent Function	
09	VV01 with Manual Override	De-energized; power comp. open
10	VV01 without Manual Override	De-energized; power comp. closed
11	VV01 with Manual Override	De-energized; power comp. open
12	VV01 without Manual Override	De-energized; power comp. closed
CA	Shuttle Valve	
DA	Shuttle Valve	
CB	VV01 Code 09 and Shuttle Valve Code CA	
CD	VV01 Code 11 and Shuttle Valve Code CA	
DB	VV01 Code 09 and Shuttle Valve Code DA	
DD	VV01 Code 11 and Shuttle Valve Code DA	
BH	VV01 Code 10 and Shuttle Valve Code CA and Position Control* with Amplifier	
BK	VV01 Code 12 and Shuttle Valve Code CA and Position Control* with Amplifier	
BN	VV01 Code 10 and Shuttle Valve Code DA and Position Control* with Amplifier	
BQ	VV01 Code 12 and Shuttle Valve Code DA and Position Control* with Amplifier	
BC	VV01 Code 10 and Position Control* with Amplifier	
BE	VV01 Code 12 and Position Control* with Amplifier	
BA	Position Control* with Amplifier	
BF	Position Control* with Amplifier and Shuttle Valve Code CA	
BL	Position Control* with Amplifier and Shuttle Valve Code DA	

Weight:	D5S 2-Port	D5S 3-Port
D5S06	3.6 kg (7.9 lbs)	3.4 kg (7.5 lbs)
D5S08	4.1 kg (9.0 lbs)	4.4 kg (9.7 lbs)
D5S10	5.4 kg (11.9 lbs)	5.0 kg (11.0 lbs)
D5S12	–	7.8 kg (17.2 lbs)

\* Position control for D5S08/10 only.  
 Spring 2 or 4. Spool A and sleeve 3.

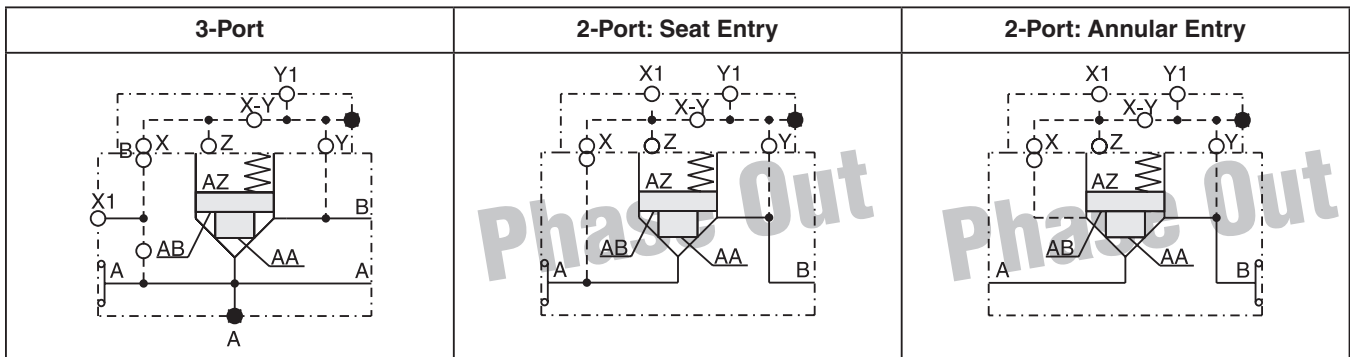
Code	Spring — Approx. Cracking Pressure in Bar (PSI)					
	Sleeve Code 1			Sleeve Code 3		
	A -> B		A -> B		B -> A	
	D5S06	D5S08/12	D5S06	D5S08/12	D5S06	D5S08/12
1	2.8 (40.6)	3.5 (50.8)	6.5 (94.3)	6.5 (94.3)	9.5 (137.8)	11.0 (159.5)
2	0.5 (7.3)	0.5 (7.3)	1.0 (14.5)	1.0 (14.5)	1.5 (21.8)	1.7 (24.7)
3	0.3 (4.4)	0.3 (4.4)	0.6 (8.7)	0.6 (8.7)	0.9 (13.1)	1.0 (14.5)
4	2.2 (31.9)	2.2 (31.9)	4.0 (58.0)	3.5 (50.8)	5.5 (79.8)	6.0 (87.0)
5	–	9.0 (130.5)	–	16.0 (232.0)	–	28.0 (406.0)
6	1.2 (17.4)	1.2 (17.4)	2.0 (29.0)	2.2 (31.9)	3.0 (43.5)	3.8 (55.1)
7	3.0 (43.5)	–	8.0 (116.0)	–	12.0 (174.0)	–

**A**

**Specifications**

General						
<b>Size</b>		<b>06</b>	<b>08</b>	<b>10</b>	<b>12</b>	
<b>Mounting</b>	Flanged according to SAE 61					
<b>Mounting Position</b>	Unrestricted					
<b>Ambient Temperature Range</b>	-20°C to +50°C (-4°F to +122°F)					
Hydraulic						
<b>Maximum Operating Pressure</b>	<b>SAE 61 Ports A, B</b>	350 Bar (5075 PSI)	350 Bar (5075 PSI)	280 Bar (4060 PSI)	210 Bar (3045 PSI)	
	<b>Port Y1</b>	30 Bar (435 PSI)	30 Bar (435 PSI)	30 Bar (435 PSI)	30 Bar (435 PSI)	
<b>Nominal Flow</b>		180 LPM (47.6 GPM)	360 LPM (95.2 GPM)	600 LPM (158.7 GPM)	800 LPM (211.6 GPM)	
<b>Fluid</b>	Hydraulic oil as per DIN 51524 ... 51525					
<b>Fluid Temperature</b>	-20°C to +80°C (-4°F to +176°F)					
<b>Viscosity</b>	<b>Permitted Recommended</b>	10 to 650 cSt / mm <sup>2</sup> /s (46 to 3013 SSU) 30 cSt / mm <sup>2</sup> /s (139 SSU)				
<b>Filtration</b>	ISO Class 4406 (1999) 18/16/13 (acc. NAS 1638: 7)					
Electrical (Solenoid)						
<b>Duty Ratio</b>	100%					
<b>Response Time</b>	Energized / De-energized AC 20/18ms, DC 46/27 ms					
<b>Protection Class</b>	IP65 in accordance with EN60529 (plugged and mounted)					
	<b>Code</b>	<b>G0R</b>	<b>G0Q</b>	<b>GAR</b>	<b>GAG</b>	<b>W30</b> <b>W31</b>
<b>Supply Voltage</b>		12V	24V	98V	205V	110V at 50Hz 120V at 60 Hz      220V at 50Hz/ 240V at 60Hz
<b>Tolerance Supply Voltage</b>		+5 to -10	+5 to -10	+5 to -10	+5 to -10	±5 to -10      ±5 to -10
<b>Power Consumption</b>	<b>Hold</b>	31W	31W	31W	31W	78W      78W
	<b>In Rush</b>	31W	31W	31W	31W	264W      264W
<b>Maximum Switching Frequency</b>	AC up to 7200; DC up to 16,000 switchings/hour					
<b>Solenoid Connection</b>	Connector as per EN175301-803					
<b>Protection Class</b>	IP65 in accordance with EN 60529 (plugged and mounted)					
<b>Coil Insulation Class</b>	H (180°C) (356°F)					

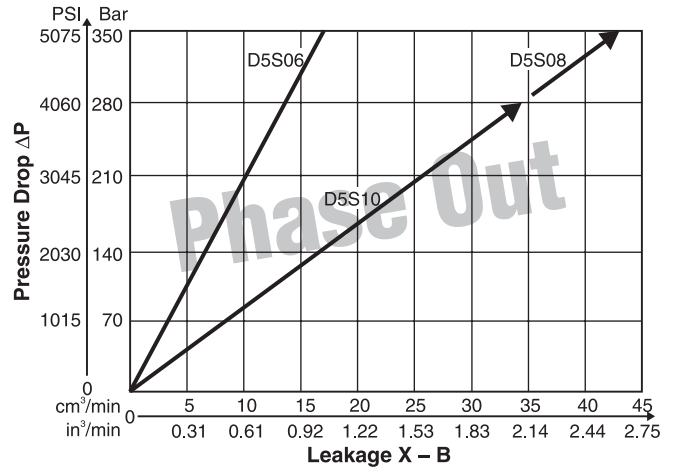
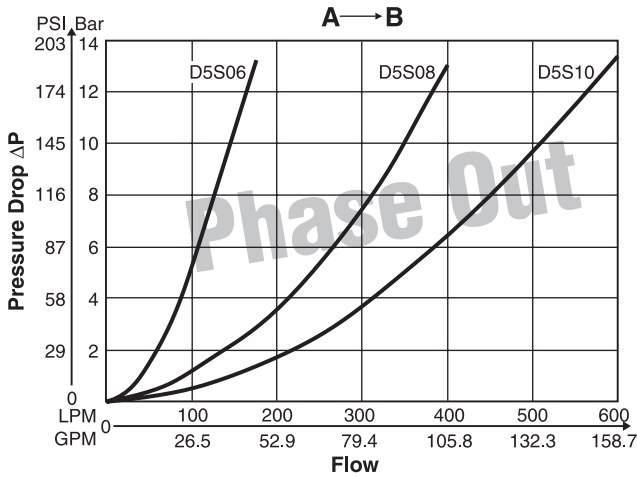
**D5S Pilot Configuration**



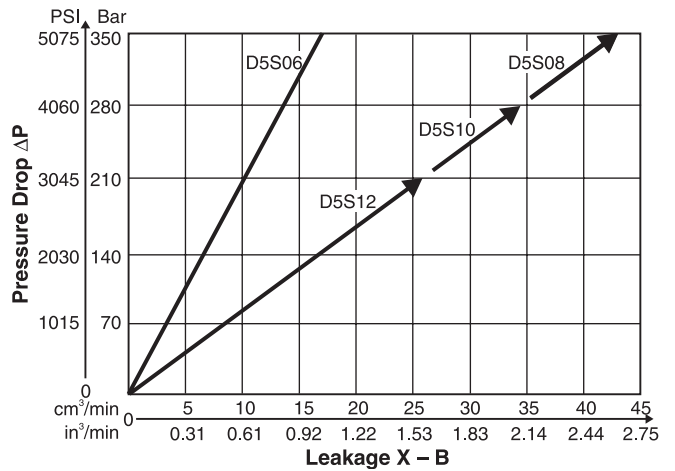
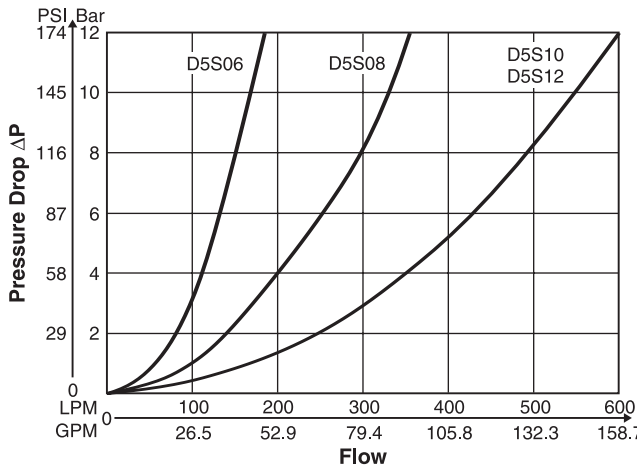
Note: 2-port bodies are being phased out.

**Performance Curves**

**D5S 2-Port\*** Note: 2-port bodies are being phased out.



**D5S 3-Port\***



\*Fluid viscosity 38cSt at 50°C (122°F)

**Selection of Cartridges**

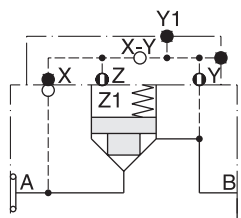
Sleeve 1, Poppet 1	Sleeve 1, Poppet 2	Sleeve 1, Poppet 4	Sleeve 3, Poppet 4	Sleeve 3, Poppet A	Sleeve 3, Poppet B/C
1 : 1.05 $A_A = 0.95 A_C$ $A_B = 0.95 A_C$ 15° chamfer	1 : 1.05 $A_A = 0.95 A_C$ $A_B = 0.95 A_C$ 15° chamfer orifice	1 : 1.05 $A_A = 0.95 A_C$ $A_B = 0.95 A_C$ 45° chamfer	1 : 1.67 $A_A = 0.6 A_C$ $A_B = 0.4 A_C$ 45° chamfer	1 : 1.67 $A_A = 0.6 A_C$ $A_B = 0.4 A_C$ 45° chamfer safety spool	1 : 1.67 $A_A = 0.6 A_C$ $A_B = 0.4 A_C$ 45° chamfer throttle spool



**A**

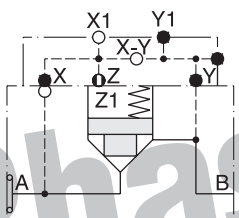
**D5S 2-Port Examples** *Note: 2-port bodies are being phased out.*

**Seat Entry**



D5S...-722

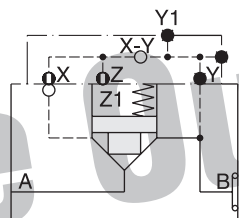
Pilot oil: internal from B



D5S...-743

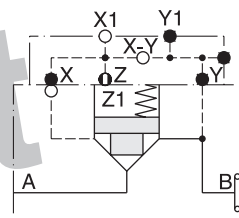
Pilot oil: external from X1

**Annular Entry**



D5S...-821

Pilot oil: internal from B

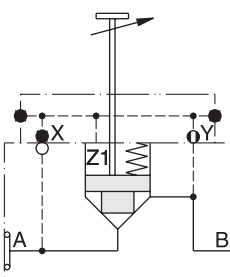


D5S...-843

Pilot oil: external from X1

**Stroke Limiter D5S 2-Port Examples**

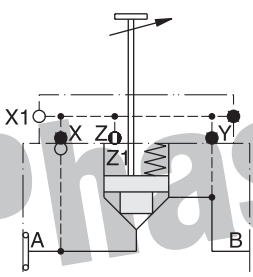
**Seat Entry**



D5S08-72B

10

Pilot oil: internal from B

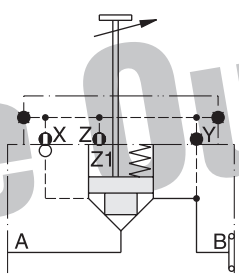


D5S08-74C

10

Pilot oil: external from X1

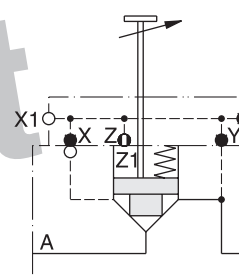
**Annular Entry**



D5S08-82A

10

Pilot oil: internal from B

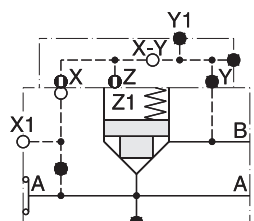


D5S08-84C

10

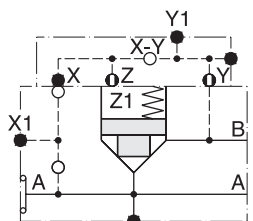
Pilot oil: external from X1

**D5S 3-Port Examples**



D5S ...-541

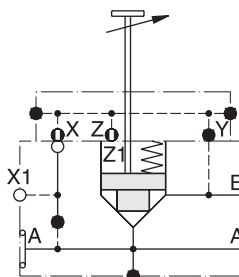
Pilot oil: external from X1



D5S ...-522

Pilot oil: internal from B

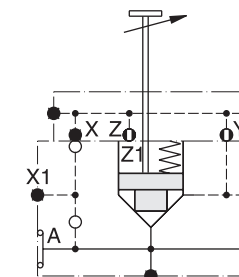
**Stroke Limiter D5S 3-Port Examples**



D5S08-54A

10

Pilot oil: external from X1



D5S08-52B

10

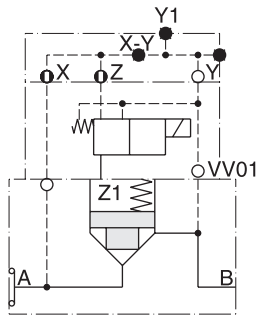
Pilot oil: internal from B

**D5S 2-Port with Solenoid Valve VV01 Examples** *Note: 2-port bodies are being phased out.*

**Seat Entry**

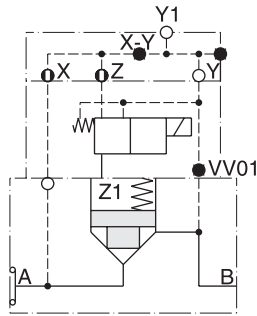
**Annular Entry**

**A**



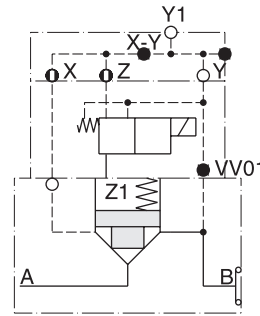
D5S..-714...09  
 10  
 11  
 12

Pilot oil: internal from A  
 Pilot drain: internal to B



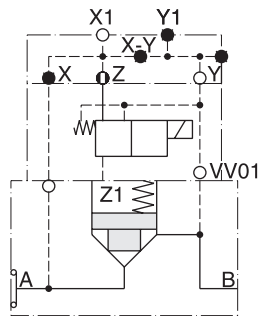
D5S..-716...09  
 10  
 11  
 12

Pilot oil: internal from A  
 Pilot drain: external out of Y1



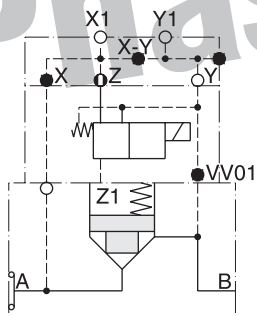
D5S..-826...09  
 10  
 11  
 12

Pilot oil: internal from B  
 Pilot drain: external out of Y1



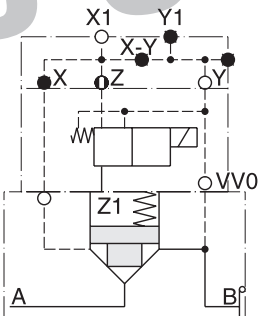
D5S..-745...09  
 10  
 11  
 12

Pilot oil: internal from X1  
 Pilot drain: internal to B



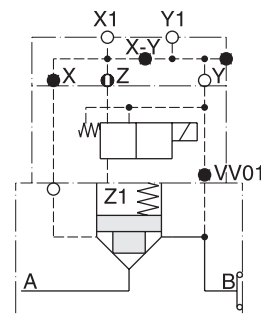
D5S..-747...09  
 10  
 11  
 12

Pilot oil: internal from X1  
 Pilot drain: external out of Y1



D5S..-845...09  
 10  
 11  
 12

Pilot oil: internal from X1



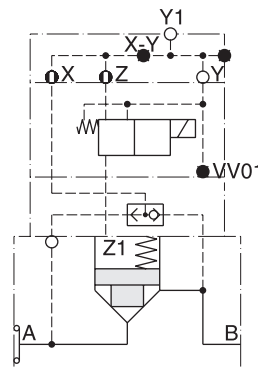
D5S..-847...09  
 10  
 11  
 12

Pilot oil: internal from X1  
 Pilot drain: external out of Y1

**D5S 2-Port with Solenoid Valve VV01 and Shuttle Valve Examples** *Note: 2-port bodies are being phased out.*

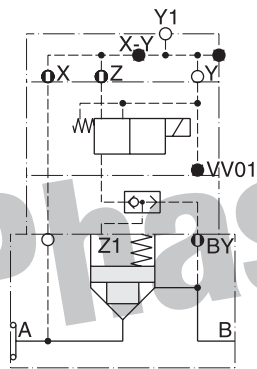
**Seat Entry**

**Annular Entry**



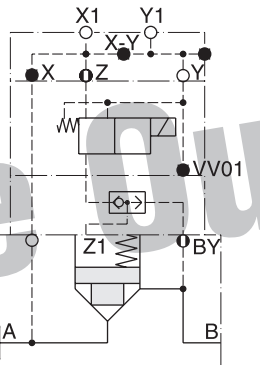
D5S..-736...CB  
 CD

Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1



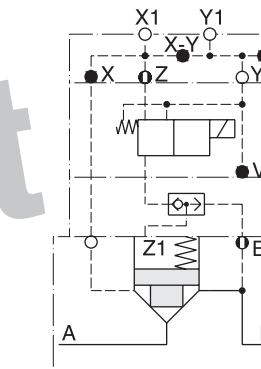
D5S..-736...DB  
 DD

Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1



D5S..-757...DB  
 DD

Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1

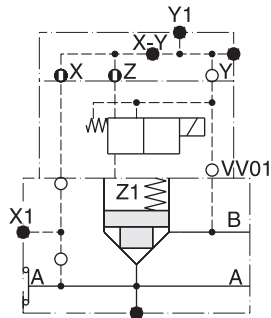


D5S..-857...DB  
 DD

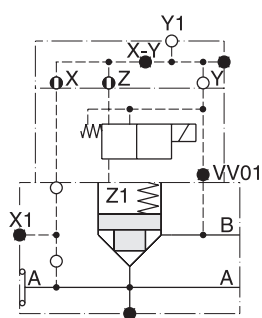
Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1

**D5S 3-Port with Solenoid Valve VV01 Examples**

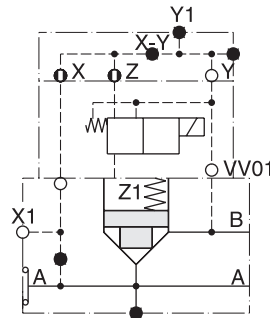
**A**



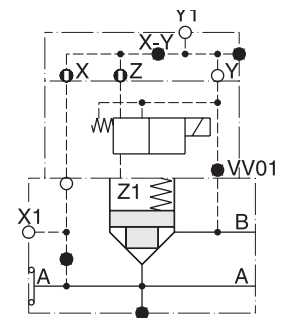
D5S ..-514...09  
 10  
 11  
 12  
 Pilot oil: internal from A  
 Pilot drain: internal to B



D5S ..-516...09  
 10  
 11  
 12  
 Pilot oil: internal from A  
 Pilot drain: external out of Y1

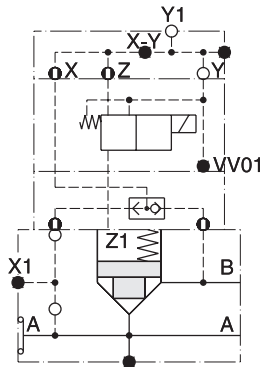


D5S ..-544...09  
 10  
 11  
 12  
 Pilot oil: external from X1  
 Pilot drain: internal to B

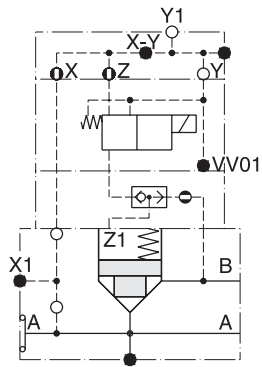


D5S ..-546...09  
 10  
 11  
 12  
 Pilot oil: external from X1  
 Pilot drain: external out of Y1

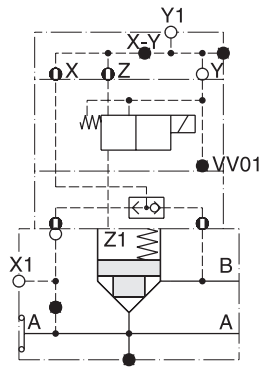
**D5S 3-Port with Solenoid Valve VV01 and Shuttle Valve Examples**



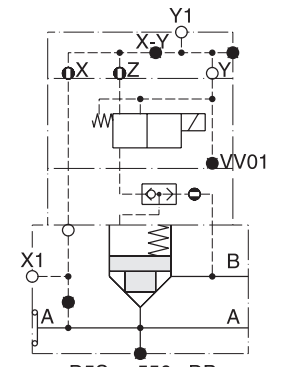
D5S ..-536...CB  
 CD  
 Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1



D5S ..-536...DB  
 DD  
 Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1



D5S ..-556...CB  
 CD  
 Pilot oil: internal from X1 +  
 internal from B  
 Pilot drain: external out of Y1



D5S ..-556...DB  
 DD  
 Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1



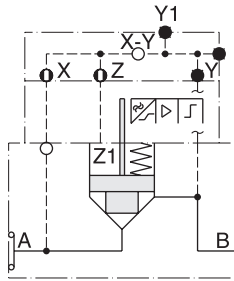
**D5S 2-Port Position Control Examples**

Note: 2-port bodies are being phased out.

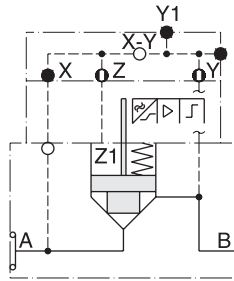
**Seat Entry**

**Annular Entry**

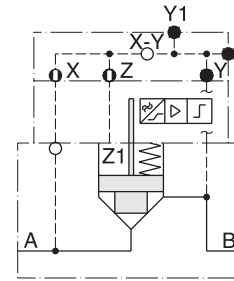
**A**



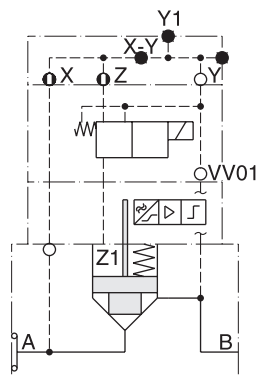
D5S08-7113A.BA  
 D5S10  
 Pilot oil: internal from A



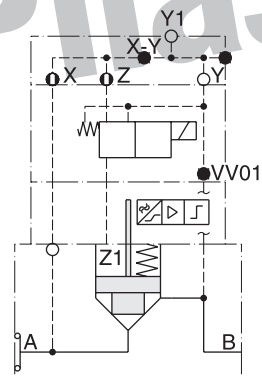
D5S08-7223A.BA  
 D5S10  
 Pilot oil: internal from B



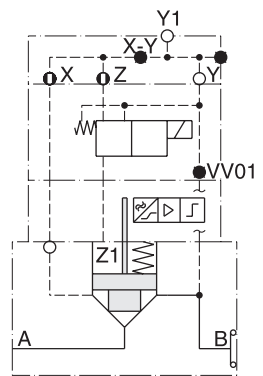
D5S08-8213A.BA  
 D5S10  
 Pilot oil: internal from B



D5S08-7143A.BC  
 D5S10 BE  
 Pilot oil: internal from A  
 Pilot drain: internal to B



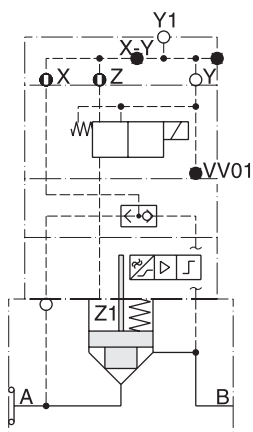
D5S08-7163A.BC  
 D5S10 BE  
 Pilot oil: internal from A  
 Pilot drain: external out of Y1



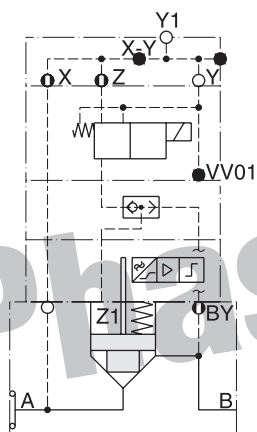
D5S08-8263A.BC  
 D5S10 BE  
 Pilot oil: internal from B  
 Pilot drain: external out of Y1

**Seat Entry**

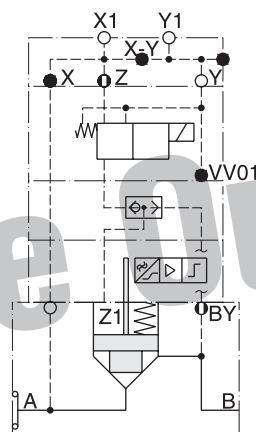
**Annular Entry**



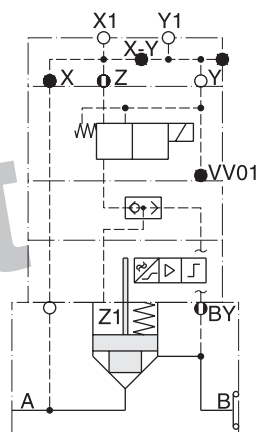
D5S ..-736...BH  
 BK  
 Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1



D5S ..-736...BN  
 BQ  
 Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1



D5S ..-757...BN  
 BQ  
 Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1

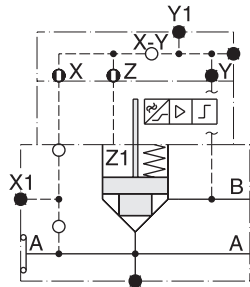


D5S ..-857...BN  
 BQ  
 Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1

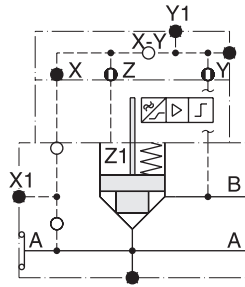
**D5S 3-Port Position Control Examples**

**A**

**Seat Entry**

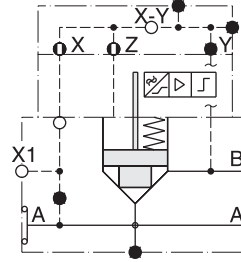


D5S08-5113A.BA  
 10  
 12  
 Pilot oil: internal from A

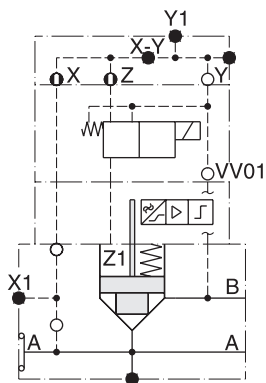


D5S08-5223A.BA  
 10  
 12  
 Pilot oil: internal from B

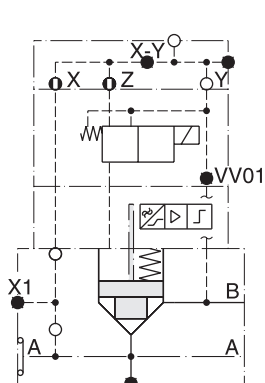
**Annular Entry**



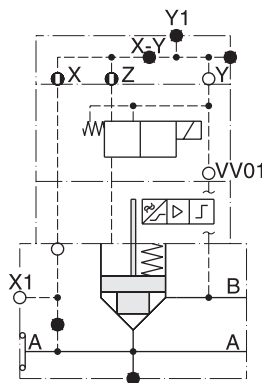
D5S08-5213A.BA  
 10  
 12  
 Pilot oil: external from X1



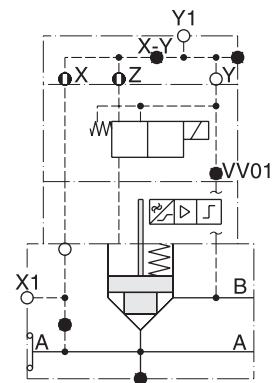
D5S08-5143A.BC  
 10 BE  
 12  
 Pilot oil: internal from A  
 Pilot drain: internal to B



D5S08-5163A.BC  
 10 BE  
 12  
 Pilot oil: internal from A  
 Pilot drain: external out of Y1

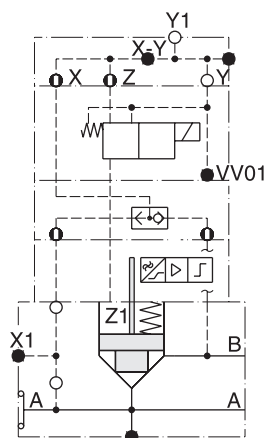


D5S08-5443A.BC  
 10 BE  
 12  
 Pilot oil: external from X1  
 Pilot drain: internal to B

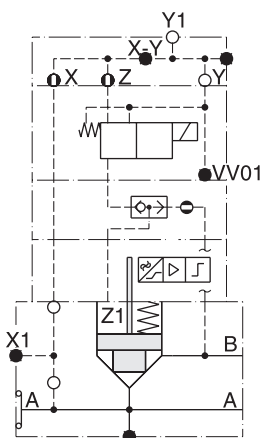


D5S08-5463A.BC  
 10 BE  
 12  
 Pilot oil: external from X1  
 Pilot drain: external out of Y1

**Seat Entry**

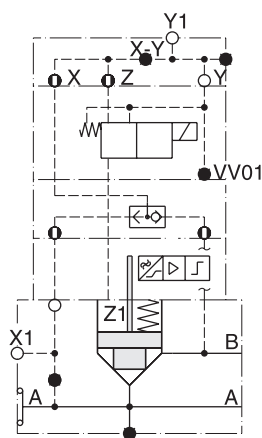


D5S08-5363A.BH  
 10 BE  
 12  
 Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1

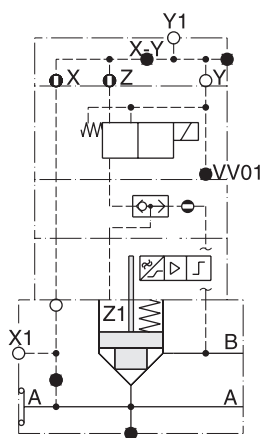


D5S08-5363A.BN  
 10 BQ  
 12  
 Pilot oil: internal from A +  
 internal from B  
 Pilot drain: external out of Y1

**Annular Entry**

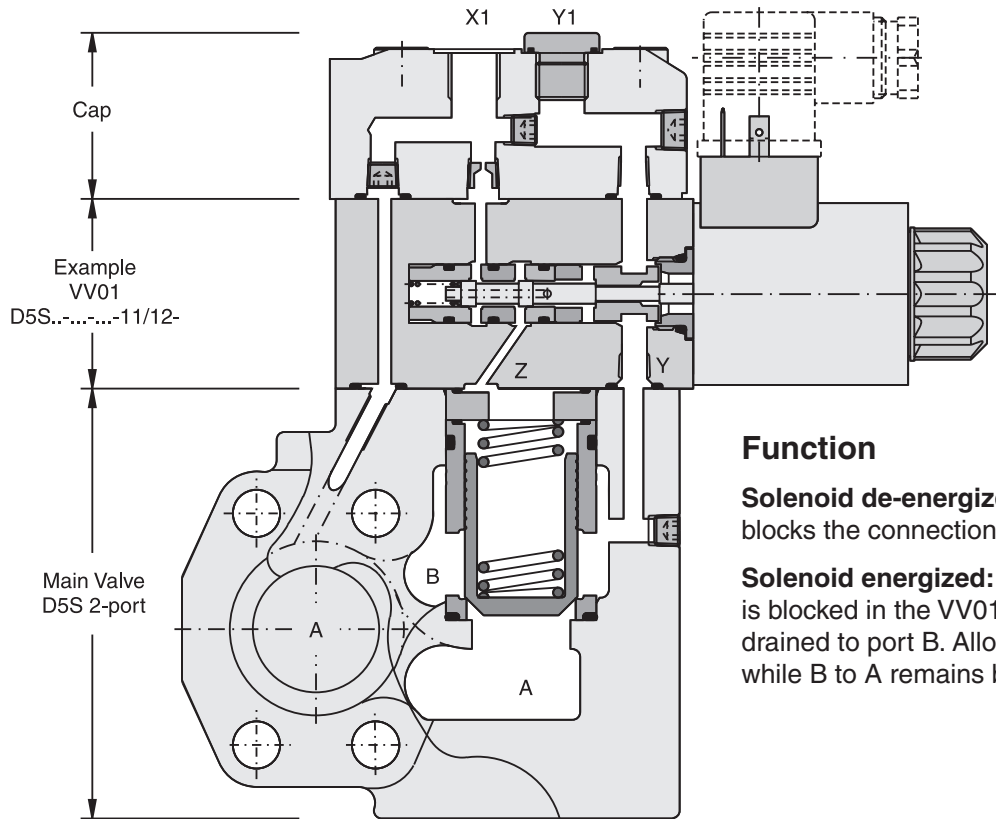


D5S08-5563A.BH  
 10 BK  
 12  
 Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1



D5S08-5563A.BN  
 10 BQ  
 12  
 Pilot oil: external from X1 +  
 internal from B  
 Pilot drain: external out of Y1

**Example Pilot Oil External from X1, Pilot Drain Internal Out of B with Vent Valve**



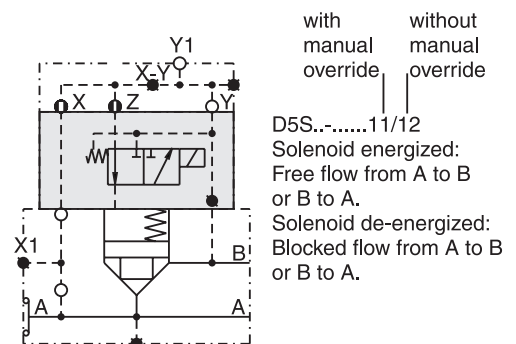
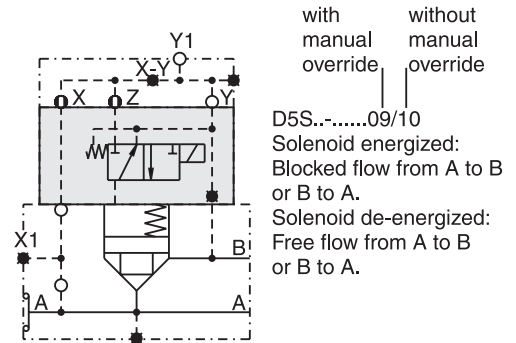
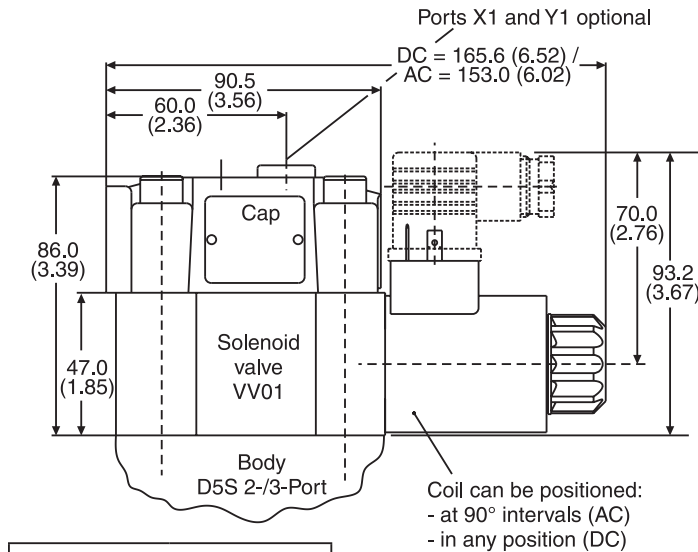
**Function**

**Solenoid de-energized:** Pilot oil from X1 to Z blocks the connection from A to B or B to A.

**Solenoid energized:** Pilot pressure from X1 is blocked in the VV01. The oil in Z is internally drained to port B. Allowing flow from A to B, while B to A remains blocked.

**Dimensions — D5S with VV01**

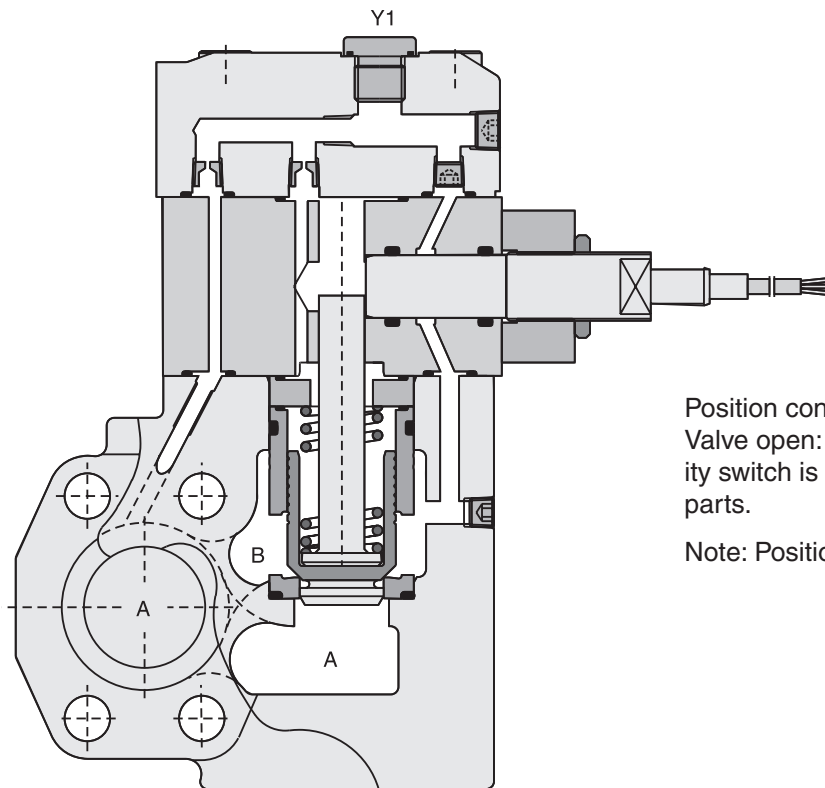
Inch equivalents for millimeter dimensions are shown in (\*\*)



VV01 Seal Kits	
Nitrile	Fluorocarbon
<b>DC Solenoid</b>	
S26-58515-0	S26-58515-5
<b>AC Solenoid</b>	
S26-35237-0	S26-35237-5

**Example Pilot Oil External from X1, Pilot Drain Internal Out of B with Position Control**

**A**

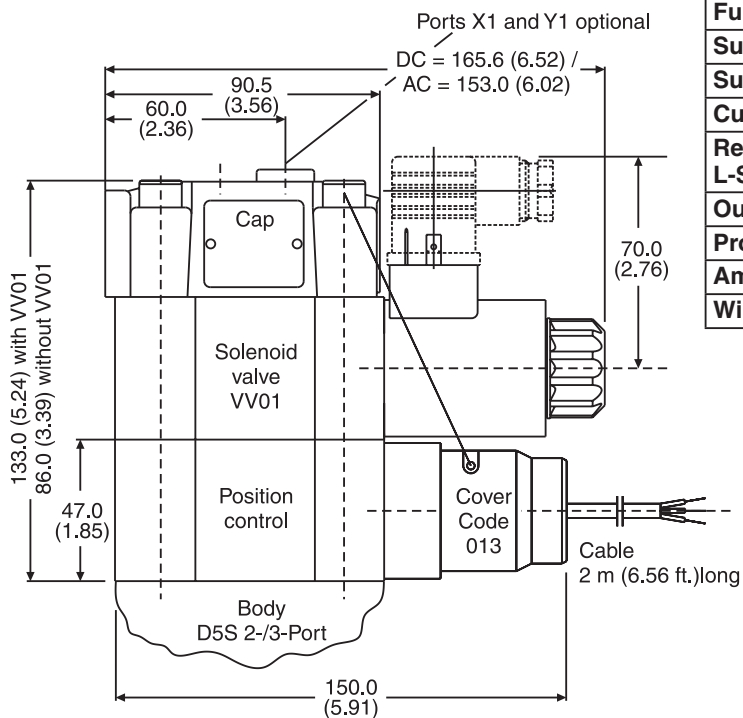


Position control by proximity switch (incl. amplifier). Valve open: proximity switch activated. This proximity switch is pressure proof and has no wearing parts.

Note: Position control for D5S08 and D5S10 only.

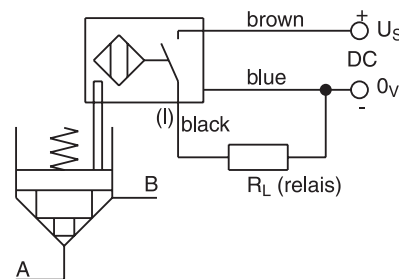
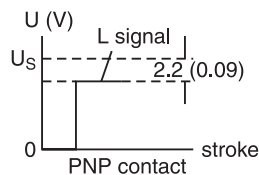
**Dimensions — D5S with Position Control**

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



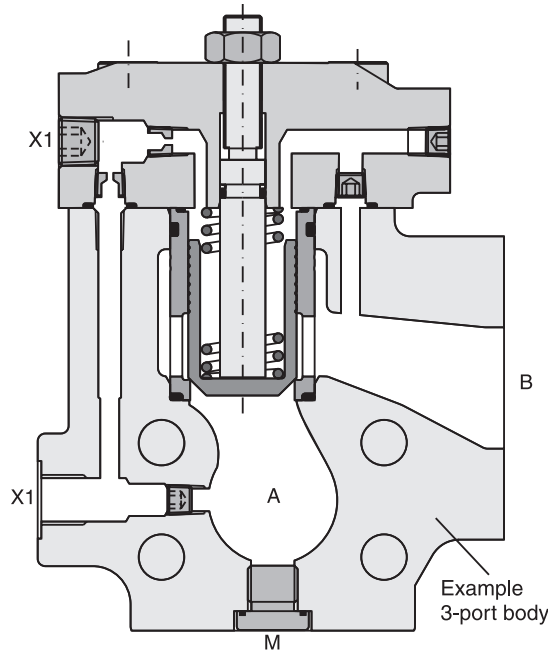
**Technical Data (Proximity Switch)**

<b>Function</b>	PNP, contact
<b>Supply Voltage</b>	10 - 30VDC
<b>Supply Voltage Ripple</b>	≤10%
<b>Current Consumption</b>	8mA Maximum
<b>Residual Voltage L-Signal</b>	U <sub>s</sub> - 2.2V at I <sub>max</sub>
<b>Output Current</b>	≤200 mA
<b>Protection Class</b>	IP67
<b>Ambient Temperature</b>	-25°C to +70°C (-13°F to +158°F)
<b>Wire Cross Section</b>	3 x 0.5 mm <sup>2</sup>



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

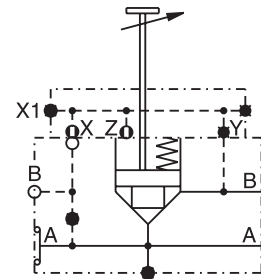
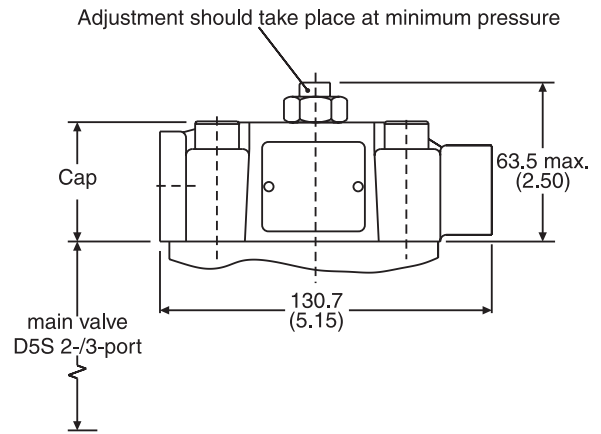
**D5S Stroke Limiter**



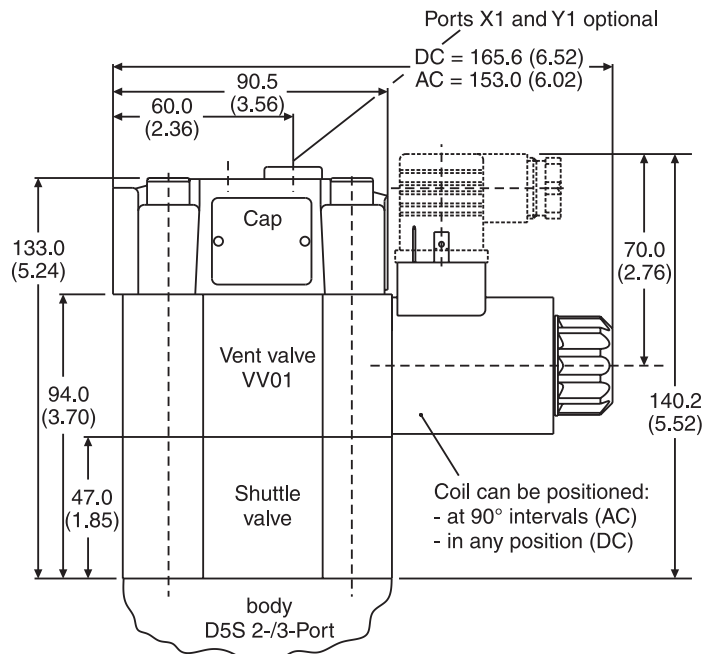
X1 = external pilot-oil (optional)

**Note:** Stroke limiter not for use with D5S06, solenoid valve VV01, shuttle valve and position control.

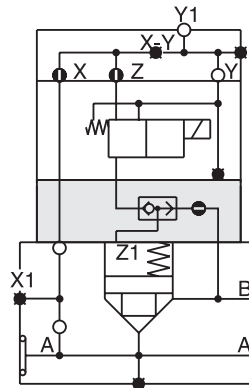
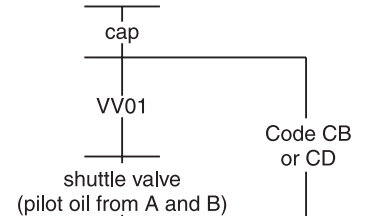
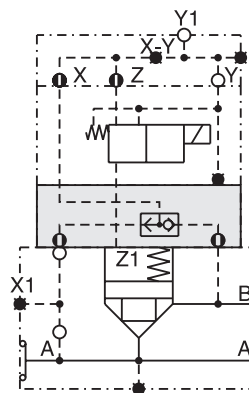
**D5S Stroke Limiter Dimensions**



**D5S with Shuttle Valve Dimensions**



Shuttle valve only in connection with vent valve VV01.



1) pilot oil from A and B, from B to A check valve function



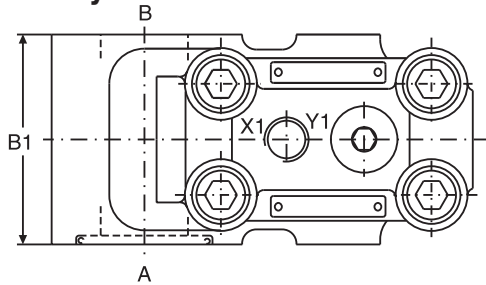
**Dimensions**

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

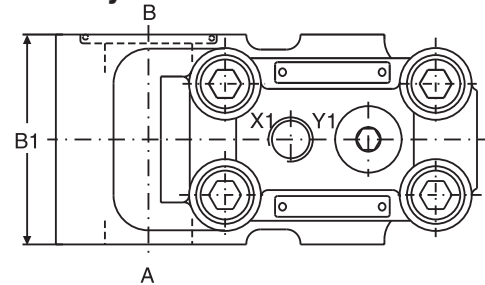
**A**

**2-Port** Note: 2-port bodies are being phased out.

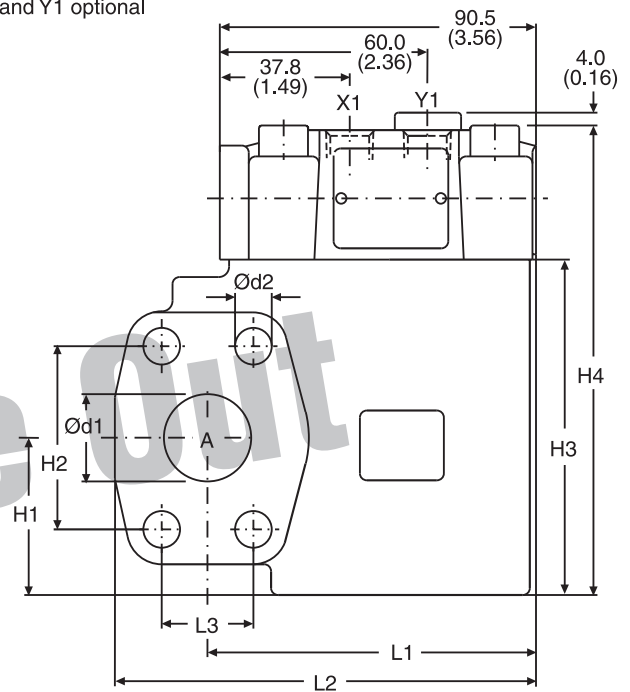
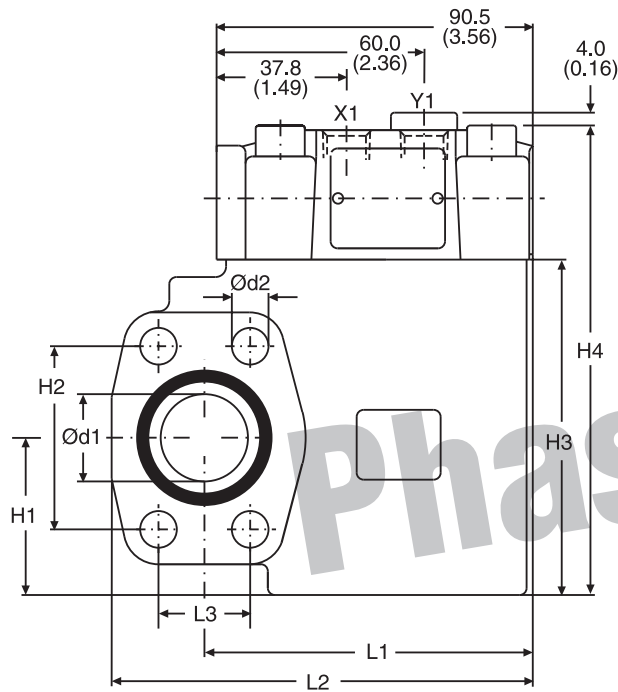
**Seat Entry**



**Annular Entry**



Ports X1 and Y1 optional



Seal Kits		
Size	Nitrile	Fluorocarbon
06	S16-91850-0	S16-91850-5
08	S16-91851-0	S16-91851-5
10	S16-91852-0	S16-91852-5

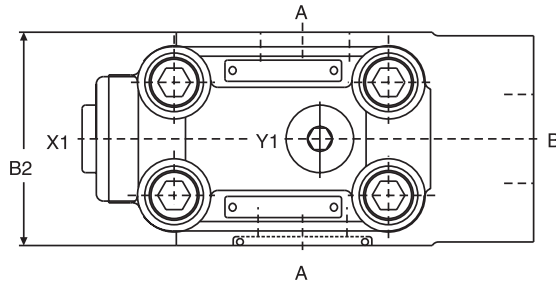
Size	I1	I2	I3	b1	h1	h2	h3	h4	d1	d2
06	77.0 (3.03)	101.0 (3.98)	22.2 (0.87)	60.0 (2.36)	37.0 (1.46)	47.6 (1.87)	90.0 (3.54)	127.6 (5.02)	19.0 (0.75)	10.5 (0.41)
08	94.0 (3.70)	120.5 (4.74)	26.2 (1.03)	60.0 (2.36)	45.0 (1.77)	52.4 (2.06)	96.0 (3.78)	133.6 (5.26)	25.0 (0.98)	10.5 (0.41)
10	94.0 (3.70)	128.0 (5.04)	30.2 (1.19)	75.0 (2.95)	48.0 (1.89)	58.7 (2.31)	109.0 (4.29)	146.6 (5.77)	32.0 (1.26)	12.5 (0.49)

Ports	Function	Port size		
		D5S06	D5S08	D5S10
A	Inlet or outlet	3/4" SAE 61	1" SAE 61	1-1/4" SAE 61
B	Outlet or inlet	3/4" SAE 61	1" SAE 61	1-1/4" SAE 61
X1	External pilot port	SAE 4		
Y1	External pilot drain			

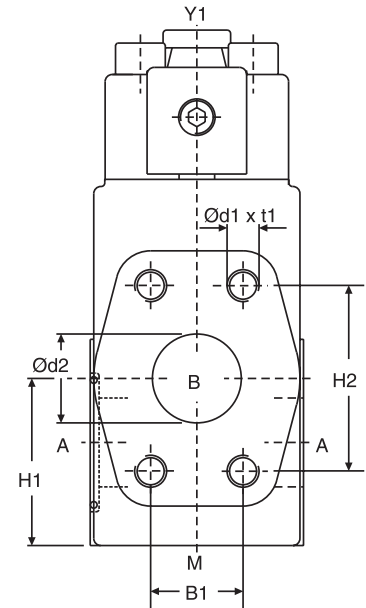
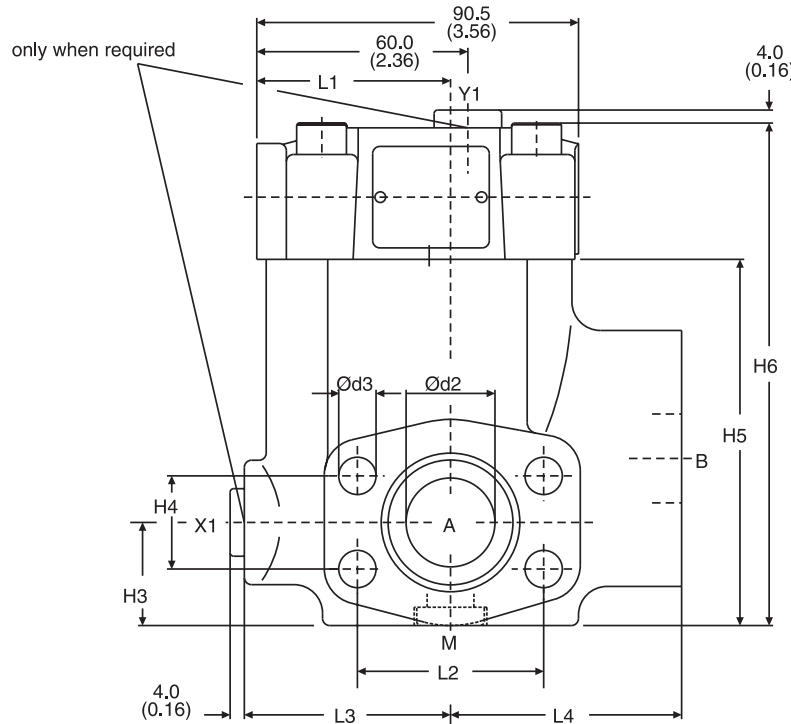


Inch equivalents for millimeter dimensions are shown in (\*\*)

**3-Port**



Seal Kits		
Size	Nitrile	Fluorocarbon
06	S16-91850-0	S16-91850-5
08	S16-91851-0	S16-91851-5
10	S16-91852-0	S16-91852-5
12	S26-27421-0	S26-27421-5



Size	I1	I2	I3	I4	b1	b2	h1	h2	h3	h4	h5	h6	d1	t1	d2	d3
06	49.0 (1.93)	47.6 (1.87)	56.0 (2.20)	63.0 (2.48)	22.2 (0.87)	60.0 (2.36)	41.0 (1.61)	47.6 (1.87)	28.0 (1.10)	22.2 (0.87)	82.0 (3.23)	119.0 (4.69)	3/8" UNC	20.0 (0.79)	19.0 (0.75)	10.5 (0.41)
08	55.0 (2.17)	52.4 (2.06)	58.0 (2.28)	65.0 (2.56)	26.2 (1.03)	60.0 (2.36)	47.0 (1.85)	52.4 (2.06)	29.0 (1.14)	26.2 (1.03)	103.0 (4.06)	141.0 (5.55)	3/8" UNC	23.0 (0.91)	25.0 (0.98)	10.5 (0.41)
10	57.0 (2.24)	58.7 (2.31)	64.0 (2.52)	61.0 (2.40)	30.2 (1.19)	75.0 (2.95)	65.0 (2.56)	58.7 (2.31)	36.0 (1.42)	30.2 (1.19)	113.0 (4.45)	150.0 (5.91)	7/16" UNC	22.0 (0.87)	32.0 (1.26)	12.5 (0.49)
12	37.0 (1.46)	69.8 (2.75)	55.0 (2.17)	93.0 (3.66)	35.7 (1.41)	80.0 (3.15)	73.0 (2.87)	69.8 (2.75)	72.0 (2.83)	35.7 (1.41)	140.0 (5.51)	178.0 (7.01)	1/2" UNC	27.0 (1.06)	38.0 (1.50)	13.5 (0.53)

Ports	Function	Port size			
		D5S06	D5S08	D5S10	D5S12
A (2x)	Inlet or outlet	3/4" SAE 61	1" SAE 61	1 1/4" SAE 61	1 1/2" SAE 61
B	Outlet or inlet	3/4" SAE 61	1" SAE 61	1 1/4" SAE 61	1 1/2" SAE 61
X1*	External pilot port	SAE 4			
Y1	External pilot drain				
M	Pressure gauge				

\* closed when supplied.

