

11. Cartridges & Seat Valves

Series	Function	Model	Size	Flow (GPM)		Max. Pressure (PSI)	Subplate mounted	Threaded Body	SAE flange mounted	Cartridge	Page
				Nominal	Maximum						
CVD CVC	Relief (DIN 24342)	CVD05	NG16	40	53	5000	-	-	-	●	11 - 2
		CVD08	NG25	53	79	5000	-	-	-	●	
		CVD10	NG32	119	159	5000	-	-	-	●	
CUD CUC	Unload (DIN 24342)	CUD08	NG25	53	79	5000	-	-	-	●	11 - 3
		CUD10	NG32	119	159	5000	-	-	-	●	
C1D C1C	Seat Valve on/off (DIN 24342)	C1D05	NG16	40	53	5000	-	-	-	●	11 - 4
		C1D08	NG25	82	106	5000	-	-	-	●	
		C1D10	NG32	132	198	5000	-	-	-	●	
		C1D12	NG40	251	330	5000	-	-	-	●	
		C1D16	NG50	449	661	5000	-	-	-	●	
		C1D20	NG63	753	1057	5000	-	-	-	●	
		C1D24	NG80	1110	1585	5000	-	-	-	●	
		C1D32	NG100	1744	2642	5000	-	-	-	●	
CAR	Seat Valve on/off	CAR4	½"	40	48	5000	-	-	-	●	11 - 6
		CAR2	1 ½"	119	159	5000	-	-	-	●	
D4S	Seat Valve on/off	D4S03	⅜"	40	48	5000	●	●	-	-	11 - 7
		D4S06	¾"	71	95	5000	●	●	-	-	
		D4S10	1 ¼"	119	159	5000	●	●	-	-	
D5S	Seat Valve on/off (2 ports)	D5S06	¾"	40	48	5000	-	-	●	-	11 - 8
		D5S08	1"	71	95	5000	-	-	●	-	
		D5S10	1 ¼"	119	159	4000	-	-	●	-	
	Seat Valve on/off (3 ports)	D5S06	¾"	40	48	5000	-	-	●	-	
		D5S08	1"	71	95	5000	-	-	●	-	
		D5S10	1 ¼"	119	159	4000	-	-	●	-	
		D5S12	1 ½"	159	211	3000	-	-	●	-	



D5S Series Flange mounted – Seat Valve 2 ports – 3 ports, SAE-61

211 GPM – 5000 PSI max.

Key sheet Example : **D5S08-944-144-09G0Q-B1**

1. **D5S08-944-144-09G0Q-B1** Series

Size	3/8"	1/2"	1 1/4"	1 1/2"
Nominal flow (GPM)	40	71	119	159
Maximum flow (GPM)	48	95	159	211
Maximum pressure (PSI)	5000	5000	4000	3000
2 ports version	✓	✓	✓	-
3 ports version	✓	✓	✓	✓
Series	D5S06	D5S08	D5S10	D5S12

2. **D5S08-944-144-09G0Q-B1** Body mounting

D5S version	2 ports D5S				3 ports D5S	
Entry	Seat (A)		Annular (B)		Seat (A)	
Ports	X1,Y1				X1,Y1, M	
	G 1/4"	SAE-4	G 1/4"	SAE-4	G 1/4"	SAE-4
Code	7	1	8	2	5	9

3. **D5S08-944-144-09G0Q-B1** ..Body type (pilot line)

Type	Code
Internal from A	1
External from B	2
Internal from A & B	3
External from X1	4
Internal from B, external from X1	5

4. **D5S08-944-144-09G0Q-B1** ... Cap type (pilot line)

D5S version		2 ports	3 ports	Code	Orifices						
					X	Y	Z	X-Y	X1	Y1	
Pilot Pressure =		✓	✓	1	●	●	○	○		●	
Pilot Drain		✓	✓	2	●	○	○	○		●	
For VV01		✓	-	3	●	●	○	○	○	●	
Internal to B	Internal	✓	✓	4		○	○	●		●	
	External	✓	-	5	●	○	○	●	○	●	
External from cap	Internal	✓	✓	6		○	○	●		○	
	External	✓	-	7	●	○	○	●	○	○	
Pilot Pressure =		✓	✓	A	○	●	○				
Pilot Drain		✓	✓	B	●	○	○				
(stroke limiter)		✓	-	C	●	●	○				

○ : 0.05" orifice. ● : Open bore. ○ : Close bore.

5. **D5S08-944-144-09G0Q-B1** Sleeve

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

6. **D5S08-944-144-09G0Q-B1** Spool

	Code	Sleeve
Closed bottom, 15 ° chamfer	1	1
D5S06 : 0.03" orifice, 15 ° chamfer	2	
D5S08/10/12 : 0.05" orifice, 15 ° chamfer	4	
Closed bottom & 45 ° chamfer	4	3
Safety spool (for end position control)	A	
D5S06/10/12		
Throttle spool, 10 ° chamfer	B	
Throttle spool, 3 ° chamfer	C	

7. **D5S08-944-144-09G0Q-B1**..... Cracking pressure

Pressure (PSI)	Sleeve 1		Sleeve 3			
	A → B		A → B		B → A	
Code	D5S06	D5S08 D5S10 D5S12	D5S06	D5S08 D5S10 D5S12	D5S06	D5S08 D5S10 D5S12
1	41	51	94	94	138	160
2	7	7	15	15	22	25
3	4	4	9	9	13	15
4	32	32	58	51	80	87
5	-	131	-	232	-	406
6	17	17	29	32	44	55
7	44	-	116	-	174	-

8. **D5S08-944-144-09G0Q-B1**..... Accessories

Electrical Venting (VV01)	Normally opened	09
	Normally closed	11
Others (shuttle valve,...)		Denison
No venting		Omit

9. **D5S08-944-144-09G0Q-B1**..... Voltage

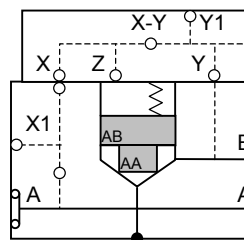
Electrical venting	DC		AC	
	12 V	G0R	115 V	60 Hz W01
				50 Hz W06
	24 V	G0Q	230 V	60 Hz W02
				50 Hz W07
No venting		Omit		

10. **D5S08-944-144-09G0Q-B1**..... Design letter

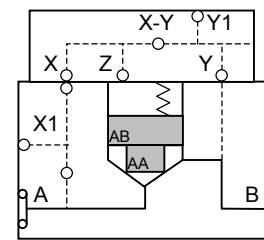
11. **D5S08-944-144-09G0Q-B1**..... Seal class

Buna N : Mineral oil	1
Others	Denison Hydraulics

Orifices : 3-ports version



Orifices : 2-ports version



Spool & Sleeve selection table

Function	Type	
Directional & Flow Control	A → B	D5S♦♦♦♦♦-144-...
	A → B or B → A	D5S♦♦♦♦♦-344-...
Pressure control	-	D5S♦♦♦♦♦-114-...
Flow control	Spool B (10 °)	D5S♦♦♦♦♦-3B♦-...
	Spool C (3 °)	D5S♦♦♦♦♦-3C♦-...
Pressure Unloading	-	D5S♦♦♦♦♦-124-...
Check Valve	Direct	D5S♦♦♦♦♦-14♦-...
	Pilot operated	D5S♦♦♦♦♦-34♦-...