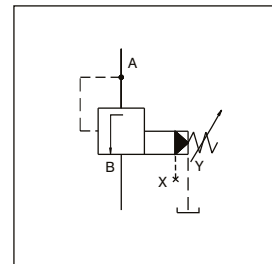


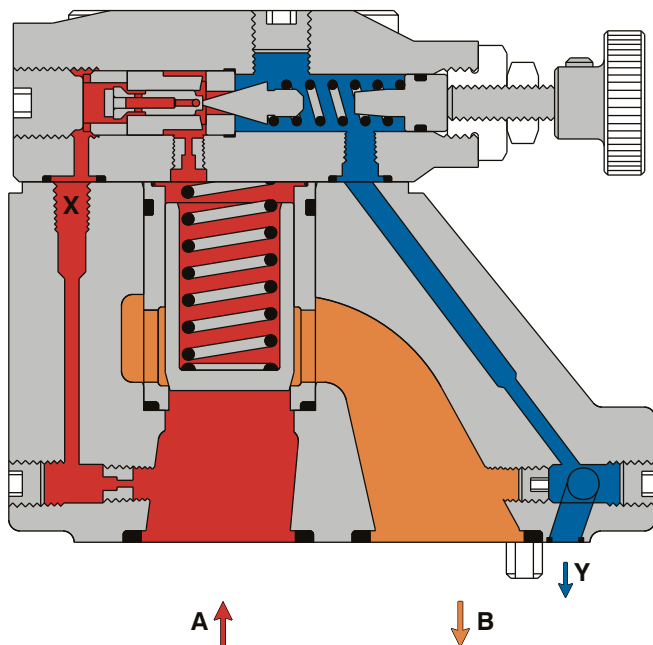
Veljan Sequence Valve Series VR4S are pilot operated controls and enable a hydraulic system to operate in a sequence. Fluid is allowed to pass to a secondary system ( Port B ) after the primary system ( Port A ) pressure reaches the preadjusted value set at pilot spring.

VR4S consists of a high flow poppet type seat valve section controlled by the low flow, adjustable pilot section mounted on top. Pressure setting is altered by means of a knurled knob. For tamper proof setting , acorn nut with lead seal is available as option. Optional vent valve VVV01 sandwiched between the pilot section and the main body can be used for venting the VR4S valves. Pilot drain can be taken out externally from a pilot head or from a subplate.

Exceptionally fast response is obtained due to the precise ratio between the main piston area and its mass. The unique design features of pilot allows for accurate and stable secondary pressure controls. Precise adjustment and quick response eliminate pressure variation and system shocks.



PC



Port A is connected to the primary section and port B to the secondary section of a hydraulic system. At low pressure, flow entering to Port A is blocked by the main poppet. Pressure at Port A passes through orifices to the pilot section as well as to the top of the main poppet. No flow takes place to this section until the pressure overcomes the spring setting of the pilot cone. The pilot cone is lifted from its seat releasing a small pilot flow through external drain and resulting in a pressure drop across the main poppet. The main poppet opens and allows only enough flow to the secondary system ( Port B ) maintaining the primary system pressure ( Port A ) at the pre-set value until the pressure at secondary port rises to the same value. As soon as the pressure is equal in both ports, the control piston in the pilot section closes preventing loss of oil through external drain. The main poppet opens fully and allows pressure at A and B to rise to a higher value than set . In such a situation the VR4S works as a gate valve allowing flow in either direction.

**SPECIFICATIONS**

PC

**General**

Type	:	Pilot operated Sequence Valve
Design	:	Poppet type
Mounting	:	Threaded/Subplate/Cartridge/Flange
Mounting position	:	Optional
Port sizes (nominal)	:	3/8", 3/4", 1 1/4"
Direction of flow	:	A → B
Ambient temperature	:	--20° C...+60° C (--4° F...+140° F)
Special working conditions	:	Consult VELJAN

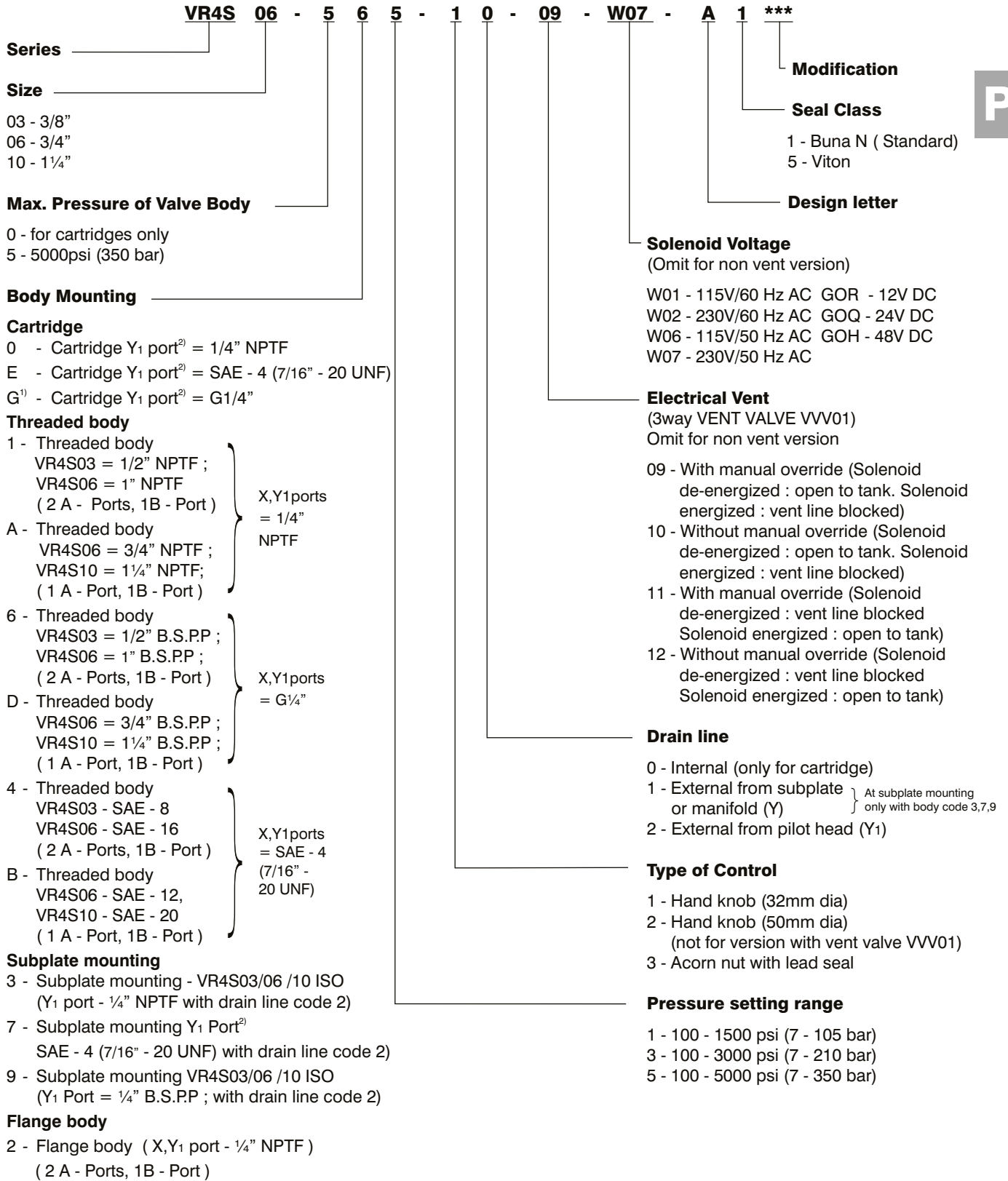
**Hydraulics**

Pressure control range	:	Minimum - depends on flow Maximum - 5000 psi (350 bar)
Maximum operating pressure	:	
Port A (inlet)		5000 psi (350 bar)
Port B (outlet)		5000 psi (350 bar)
Port X (pilot)		5000 psi (350 bar)
Port Y, Y <sub>1</sub> (Pilot drain )		Without pressure to tank
		VR4S 03 (3/8")    VR4S 06 (3/4")    VR4S 10 (1 1/4")
Nominal flow gpm (lpm)	:	15.8 (60)            52.9 (200)            119.0 (450)
Maximum flow gpm (lpm)	:	23.8 (90)            79.4 (300)            158.7 (600)
Fluid	:	Mineral oil as per DIN 51524/25 or other fluids on request
Fluid Temperature Range	:	--18° C...+80° C (0° F...+176° F)
Viscosity Range	:	10 to 650 cSt (60 to 3900 SSU)
Optimum operating viscosity	:	30 cSt (180 SSU)
Seal compatibility	:	Code 1 (Buna N) or Code 5 (Viton) (contact Veljan with specific oil details)
Cleanliness recommended	:	Better than NAS 1638 Class 8 or ISO 17/14

**Adjustment**

Manual	:	Handwheel
Rotation	:	3.75 rev.
Operating torque	:	0.72 Nm
Electricals ( Vent Valve VVV01)	:	Solenoid
Nominal voltage	:	Refer to Ordering Code
Permissible voltage fluctuation	:	+5%...-10%
Max. coil temperature	:	+155° C (311° F)
Type of current	:	Alternating Current (AC)/Direct Current (DC)
Input power	:	31 W
Holding	:	78 VA
Inrush	:	264 VA
Relative operating period	:	100%
Type of protection	:	I P 65

ORDERING CODE



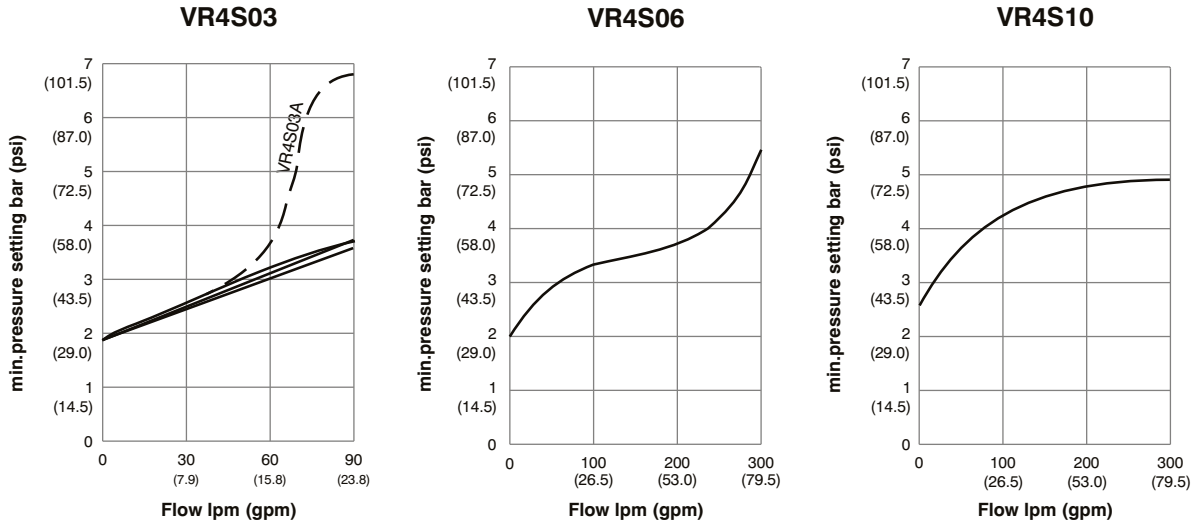
1) Only with Drain line code 2  
 2) Port Y<sub>1</sub> is only available at Drain line (code2) external from pilot head.

PERFORMANCE CURVES

ps min - qv characteristics

Fluid 60 cSt at 40° C (360 Ssu at 104° F), Test temp. 50° C (120° F) ± 10%

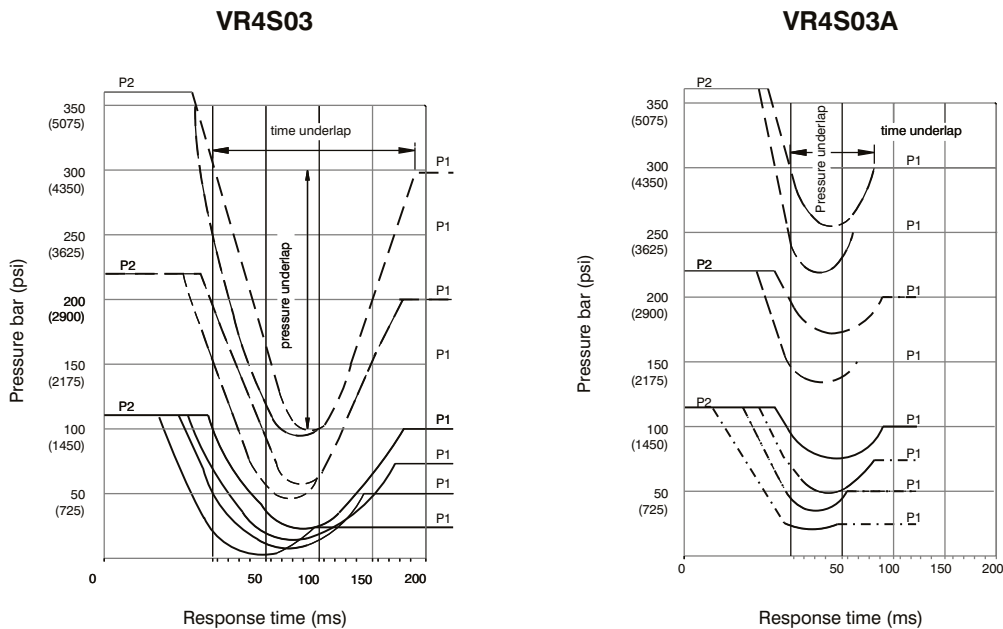
PC



Pressure Characteristics at Closing Point

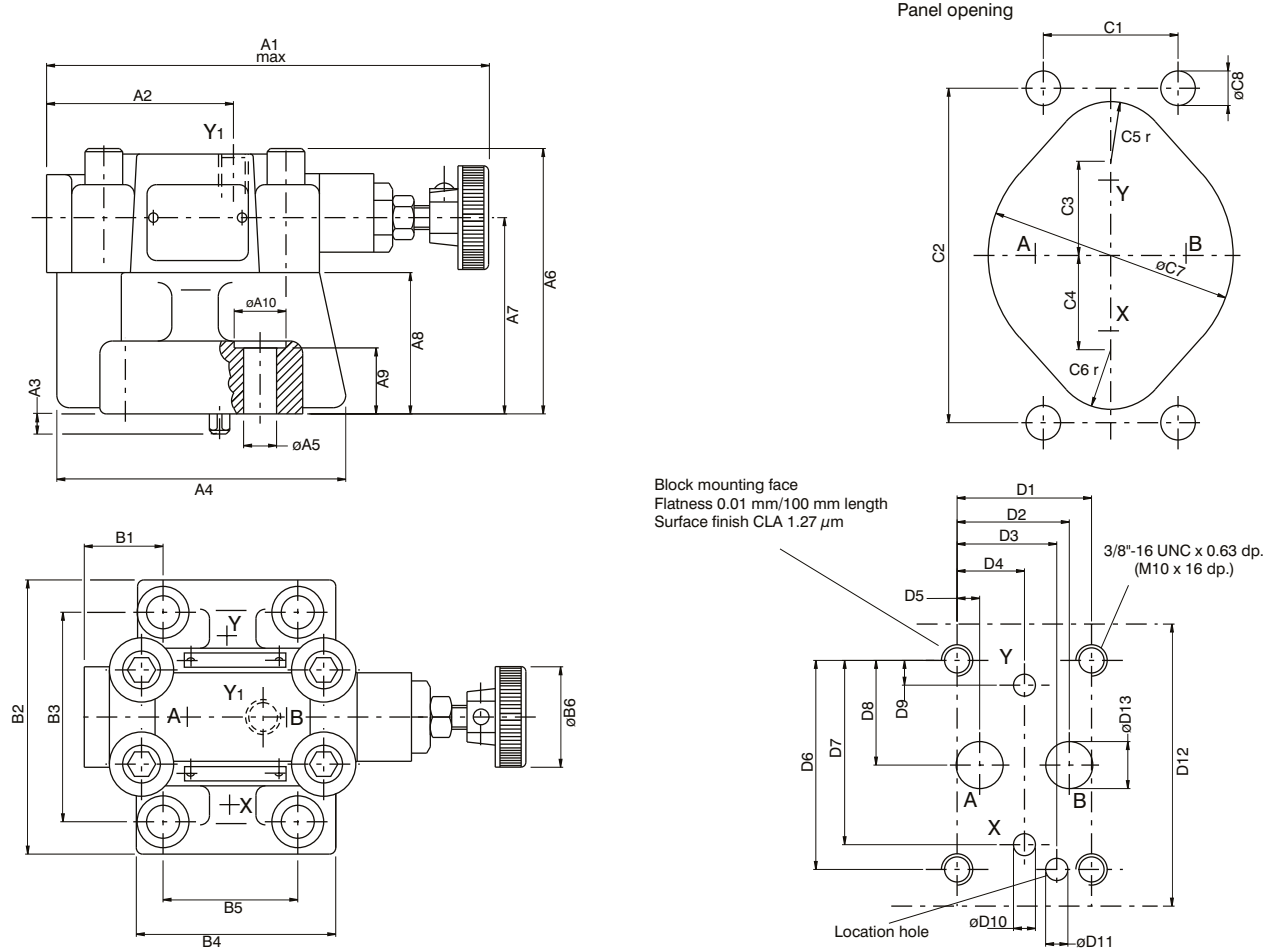
P1 = primary pressure

P2 = secondary pressure (to actuator)



VR4S03 (3/8") SUBPLATE MOUNTING BODY ( #3, #7 & #9 )

Weight : 5.93 lbs (2.7 kg)



PC

Dimensions		
	in	mm
A1	5.55	141.0
A2	2.34	59.5
A3	0.25	6.4
A4	3.62	92.0
A5	ø 0.41	ø 10.5
A6	3.33	84.5
A7	2.46	62.5
A8	1.77	45.0
A9	0.83	21.0
A10	ø 0.65	ø 16.5

Dimensions		
	in	mm
B1	1.14	29.0
B2	3.437	87.3
B3	2.626	66.7
B4	2.5	63.5
B5	1.69	42.9
B6	ø 1.26	ø 32.0

Dimensions		
	in	mm
C1	1.69	42.9
C2	4.19	106.5
C3	1.18	30.0
C4	1.18	30.0
C5	0.75 r	19.0 r
C6	0.75 r	19.0 r
C7	ø 3.07	ø 78.0
C8	ø 0.43	ø 11.0

Dimensions		
	in	mm
D1	1.69	42.9
D2	1.41	35.8
D3	0.253	31.8
D4	0.846	21.5
D5	0.283	7.2
D6	2.626	66.7
D7	2.315	58.8
D8	1.315	33.4
D9	0.311	7.9
D10	ø 0.275	ø 7.0
D11	ø 0.28 x 0.315 dp.	ø 7.1 x 8.0 dp.
D12	3.543	90.0
D13	ø 0.59	ø 15.0

Ports	Function
A	Pressure (inlet)
B	Secondary (outlet)
X <sup>1)</sup>	Remote control or vent connection
Y(Y <sub>1</sub> )	External drain <sup>1)</sup>

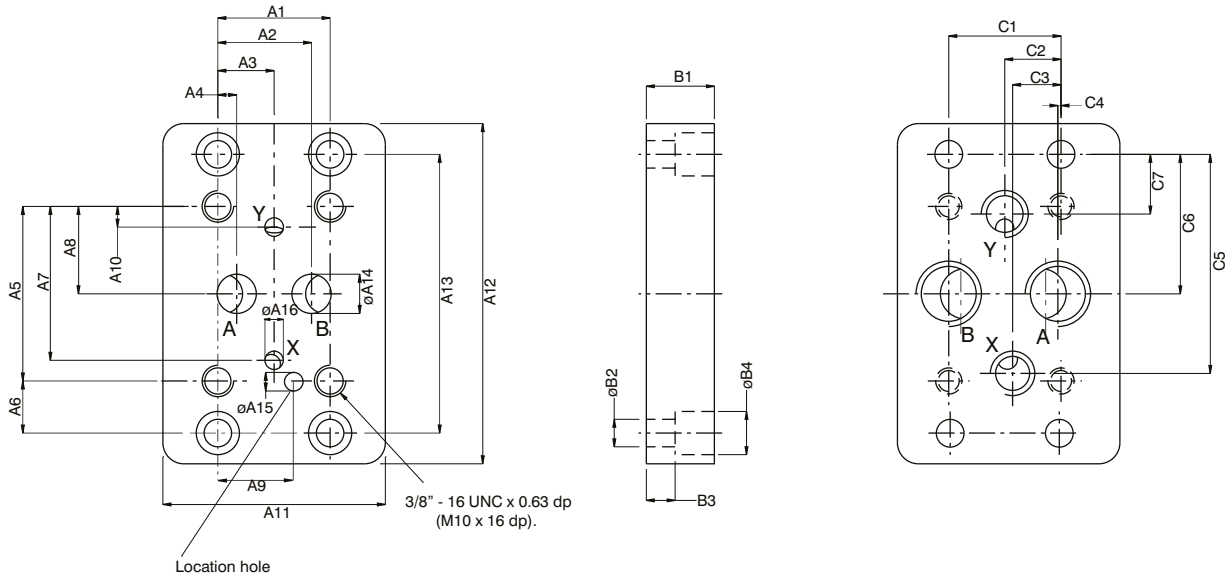
1) Optional from pilot head or subplate.  
Port Y<sub>1</sub> is only available at Drain line (code 2) external from the pilot head

Note : For details of Subplate & mtg. screws please refer page 48

VR4S03 (3/8") SUBPLATE

Weight : 4.4 lbs (2.0 kg)

PC



Dimensions	in		mm	
A1	1.69		42.9	
A2	1.41		35.8	
A3	0.846		21.5	
A4	0.283		7.2	
A5	2.626		66.7	
A6	0.783		19.9	
A7	2.315		58.8	
A8	1.315		33.4	
A9	1.25		31.8	
A10	0.311		7.9	
A11	3.346		85.0	
A12	5.12		130.0	
A13	4.19		106.5	
A14	ø 0.59		ø 15.0	
A15	ø 0.28 x 0.315 dp.		ø 7.1 x 8.0 dp.	
A16	ø 0.275		ø 7.0	

Dimensions	in		mm	
B1	1.024		26.0	
B2	ø 0.41		ø 10.5	
B3	0.433		11.0	
B4	ø 0.65		ø 16.5	

Dimensions	in		mm	
C1	1.69		42.9	
C2	0.846		21.5	
C3	0.73		18.5	
C4	0.047		1.2	
C5	3.295		83.7	
C6	2.1		53.3	
C7	0.9		22.8	

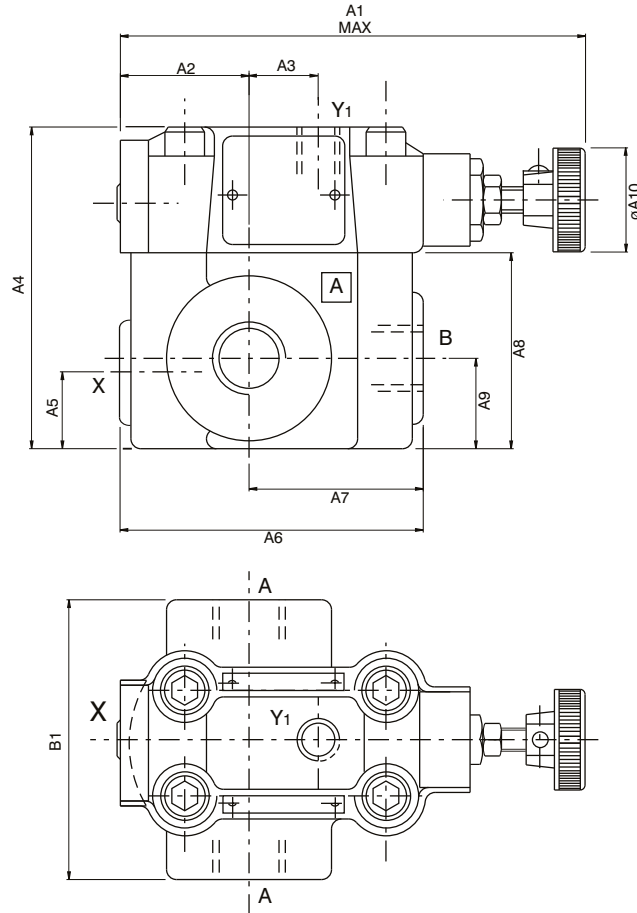
Order No.	Port sizes		4 Mounting screws*		
	A+B	X+Y	Dimension	Order no	min.tensile strength
VSS - P - 08 - G 112	½" NPTF	1/4" NPTF	3/8" - 16UNC 1¼" lg.	V358 - 16180	at p ≤ 210 bar = 100 daN/mm² (Torque 68 Nm) at p > 210 bar = 120 daN/mm² (Torque 82 Nm)
VSS - B - 08 - G 113	½" B.S.PP	1/4" B.S.PP.	M 10 x 35 mm DIN 912-12.9	V700 - 70039	

\* Mounting screws are included in subplate order.  
For valves ordered without subplate, mounting screws must be ordered separately.

VR4S03 (3/8") - THREADED BODY ( #1, #4 & #6 )

Weight : 7.03 lbs (3.2 kg)

PC



Dimensions		
	in	mm
A1	5.55	141.0
A2	1.535	39.0
A3	0.807	20.5
A4	3.84	97.5
A5	0.92	23.3
A6	3.62	91.9
A7	2.08	52.8
A8	2.34	59.4
A9	1.08	27.4
A10	ø 1.26	ø 32.0

Dimensions		
	in	mm
B1	3.34	84.8

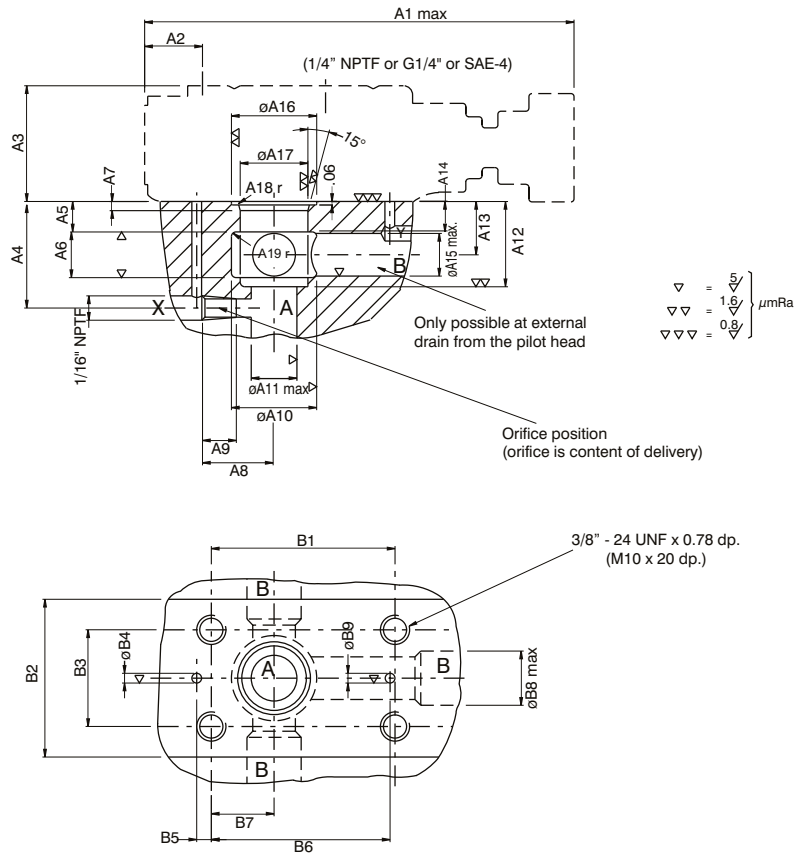
Ports	Function	Port Sizes
A(2)	Pressure (inlet)	1/2" NPTF or G 1/2" or SAE - 8 (3/4" - 16 UNF)
B	Secondary port (outlet)	1/2" NPTF or G 1/2" or SAE - 8 (3/4" - 16 UNF)
X <sup>1)</sup>	Remote control or vent connection	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)
Y <sub>1</sub>	External drain	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)

1) closed when supplied

CARTRIDGE WITH PILOT VALVE VR4S03 (3/8") (#0, #E & #G)

Weight : 1.31 lbs (0.6 kg)

PC



	Dimensions	
	in	mm
A1	5.55	141.0
A2	0.75	19.0
A3	1.49	38.0
A4	1.38	35.0
A5	0.39	10.0
A6	0.59	15.0
A7	0.12	3.0
A8	0.925	23.5
A9	0.437	11.1
A10	1.1	ø 28.0
A11	ø 0.6	ø 15.0
A12	1.1	28.0
A13	0.69	17.5
A14	0.1	10.0
A15	ø 0.55	ø 14.0
A16	ø 1.1 <sup>+0.004</sup>	ø 28.0 <sup>+0.1</sup>
A17	ø 0.875 <sup>+0.0008</sup>	ø 22.225 <sup>+0.02</sup>
A18	0.016	0.4
A19	0.06	1.5

	Dimensions	
	in	mm
B1	2.375 <sup>+0.008</sup>	60.32 <sup>+0.2</sup>
B2	2.04	51.8
B3	1.25 <sup>+0.008</sup>	31.75 <sup>+0.2</sup>
B4	ø 0.126	ø 3.2
B5	0.19	4.8
B6	2.31	58.7
B7	0.81	20.6
B8	ø 0.7	ø 17.8
B9	ø 0.126	ø 3.2

Ports	Function
A	Pressure (inlet)
B	Secondary port (outlet)
X	External control connection
Y, Y <sub>1</sub> <sup>1)</sup>	Drain

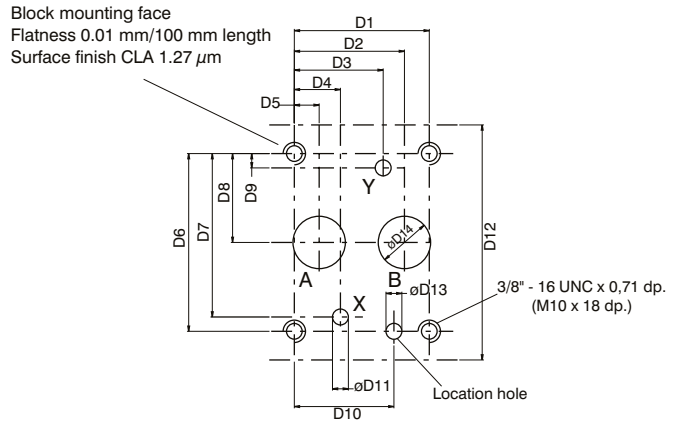
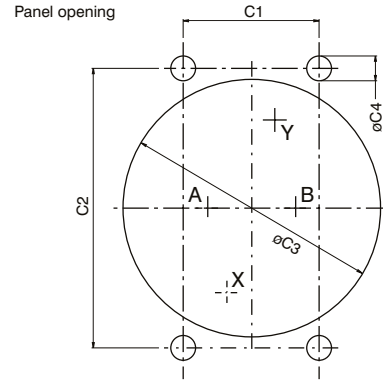
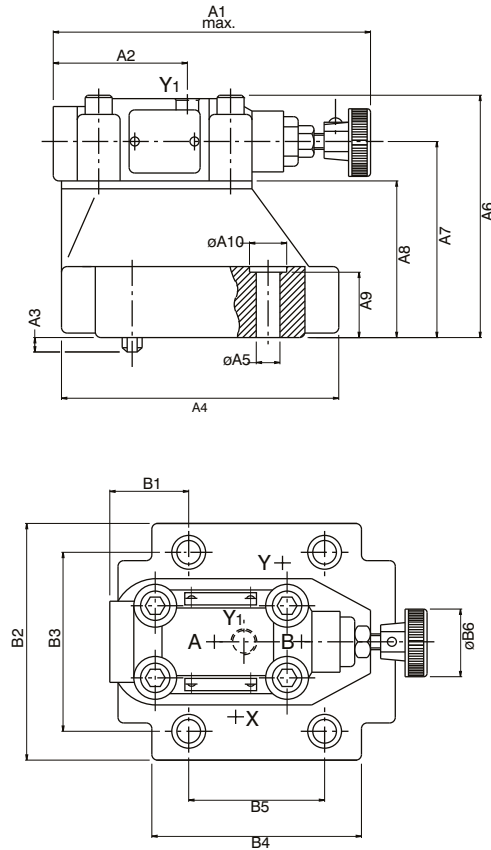
1) Port Y<sub>1</sub> is only available at Drain line (code 2) external from the pilot head.

4 Mounting screws*	
Dimensions	Order No.
3/8" - 24 UNF x 1 1/4" lg. or M10 x 45mm, DIN 912 - 12.9	V359 - 15220 or V700 - 71602

\* Mounting screws must be ordered separately

VR4S06 (3/4") SUBPLATE MOUNTING BODY ( #3, #7 & #9 )

Weight : 9.89 lbs (4.5 kg)



Dimensions	Dimensions	
	in	mm
A1	5.55	141.0
A2	2.34	59.5
A3	0.25	6.4
A4	4.842	123.0
A5	ø 0.41	ø 10.5
A6	4.232	107.5
A7	3.425	87.0
A8	2.736	69.5
A9	1.142	29.0
A10	ø 0.65	ø 16.5

Dimensions	Dimensions	
	in	mm
B1	1.38	35.0
B2	4.134	105.0
B3	3.126	79.4
B4	3.66	93.0
B5	2.374	60.3
B6	ø 1.26	ø 32.0

Dimensions	Dimensions	
	in	mm
C1	2.374	60.3
C2	4.88	124.0
C3	ø 4.645	ø 118.0
C4	ø 0.433	ø 11.0

Dimensions	Dimensions	
	in	mm
D1	2.374	60.3
D2	1.937	49.2
D3	1.563	39.7
D4	0.811	20.6
D5	0.437	11.1
D6	3.126	79.4
D7	2.874	73.0
D8	1.563	39.7
D9	0.25	6.4
D10	1.75	44.5
D11	ø 0.28	ø 7.1
D12	4.134	105.0
D13	ø 0.92	ø 23.4
D14	ø 0.28 x 0.433 dp.	ø 7.1 x 11.0 dp.

Ports	Function
A	Pressure (inlet)
B	Secondary (outlet)
X	Remote control or vent connection
Y(Y <sub>1</sub> )	External Drain <sup>1)</sup>

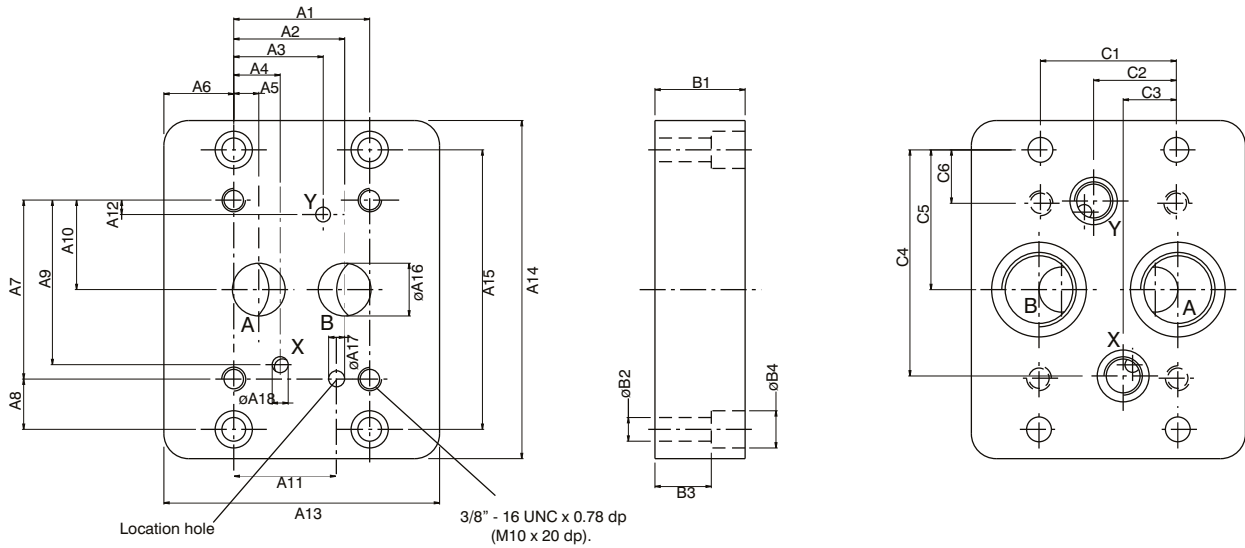
1) Optional from pilot head or subplate. Port Y<sub>1</sub> is only available at drain line (code 2) external from the pilot head.

Note : For details of Subplate & mtg. screws please refer page 52

SUBPLATE FOR VR4S06 (3/4")

Weight : 10.54 lbs (4.8 kg)

PC



	Dimensions	
	in	mm
A1	2.374	60.3
A2	1.937	49.2
A3	1.563	39.7
A4	0.811	20.6
A5	0.437	11.1
A6	1.22	31.0
A7	3.126	79.4
A8	0.88	22.3
A9	2.874	73.0
A10	1.563	39.7
A11	1.75	44.5
A12	0.25	6.4
A13	4.843	123.0
A14	5.905	150.0
A15	4.882	124.0
A16	ø 0.92	ø 23.4
A17	ø 0.28 x 0.315 dp.	ø 7.1 x 8.0 dp.
A18	ø 0.28	ø 7.1

	Dimensions	
	in	mm
B1	1.575	40.0
B2	ø 0.41	ø 10.5
B3	0.984	25.0
B4	ø 0.65	ø 16.5

	Dimensions	
	in	mm
C1	2.374	60.3
C2	1.445	36.7
C3	0.93	23.6
C4	3.949	100.3
C5	2.44	62.0
C6	0.933	23.7

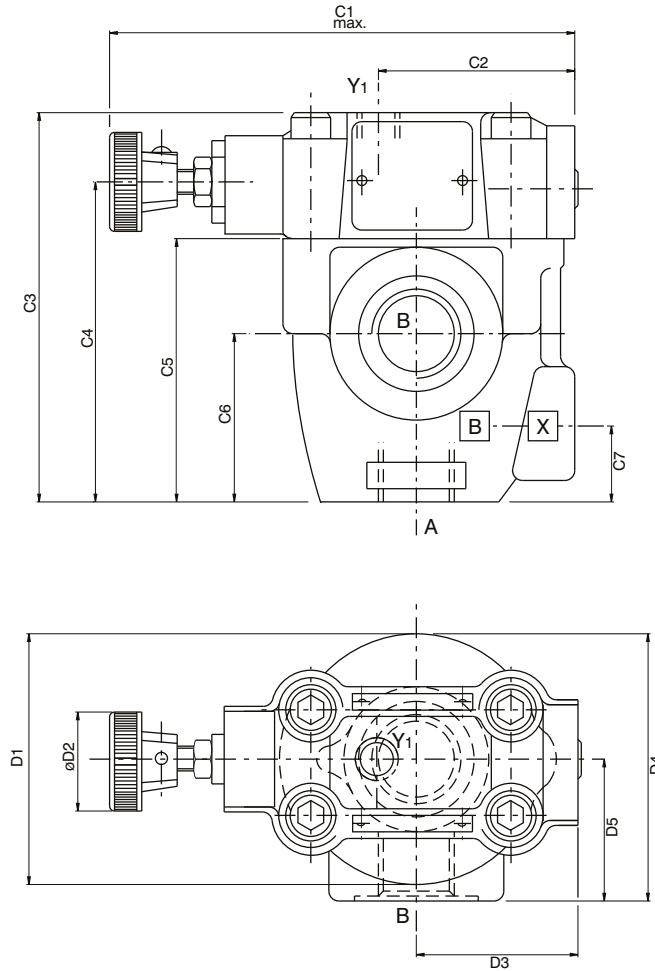
Order No.	Port sizes		4 Mounting screws*		
	A+B	X+Y	Dimension	Order no	min.tensile strength
VSS - P - 16 - G 114	½" NPTF	1/4" NPTF	3/8"-16UNC 1¾" lg	V359-16220	at p ≤ 210 bar = 100 daN/mm² (Torque 68 Nm) at p > 210 bar = 120 daN/mm² (Torque 82 Nm)
VSS - B - 12 - G 115	3/4" B.S.P.P.	1/4" B.S.P.P.	M10 x 45mm DIN 912 - 12.9	V700 - 71602	
VSS - B - 16 - G 115	1" B.S.P.P.				

\* Mounting screws are included in subplate order.  
For valves ordered without subplate, mounting screws must be ordered separately.

VR4S06 (3/4") - THREADED BODY ( #A, #B & #D )

Weight : 7.4 lbs (3.3 kg)

PC



	Dimensions	
	in	mm
C1	5.55	141.0
C2	2.34	59.5
C3	4.646	118.0
C4	3.82	97.0
C5	3.15	80.0
C6	2.01	51.0
C7	0.905	23.0

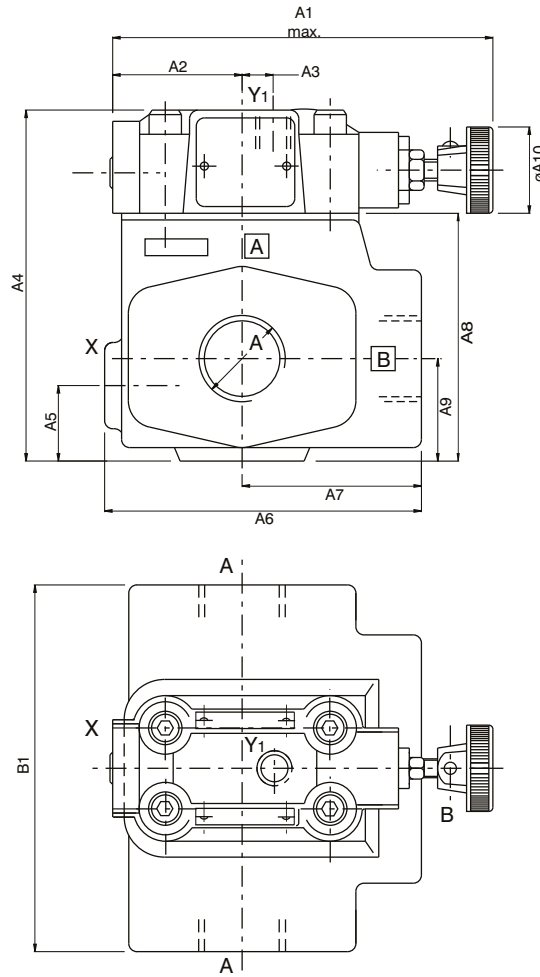
	Dimensions	
	in	mm
D1	2.99	76.0
D2	ø 1.26	ø 32.0
D3	1.93	49.0
D4	3.19	81.0
D5	1.693	43.0

Ports	Function	Port Sizes
A	Pressure (inlet)	3/4" NPTF or G 3/4" or SAE - 12 (1 <sup>1</sup> / <sub>16</sub> " - 12 UNF)
B	Secondary (outlet)	3/4" NPTF or G 3/4" or SAE - 12 (1 <sup>1</sup> / <sub>16</sub> " - 12 UNF)
X	Remote control or vent connection	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)
Y <sub>1</sub>	External drain	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)

VR4S06 (3/4") - THREADED BODY (#1, #4 & #6)

Weight : 14.5 lbs (6.6 kg)

PC



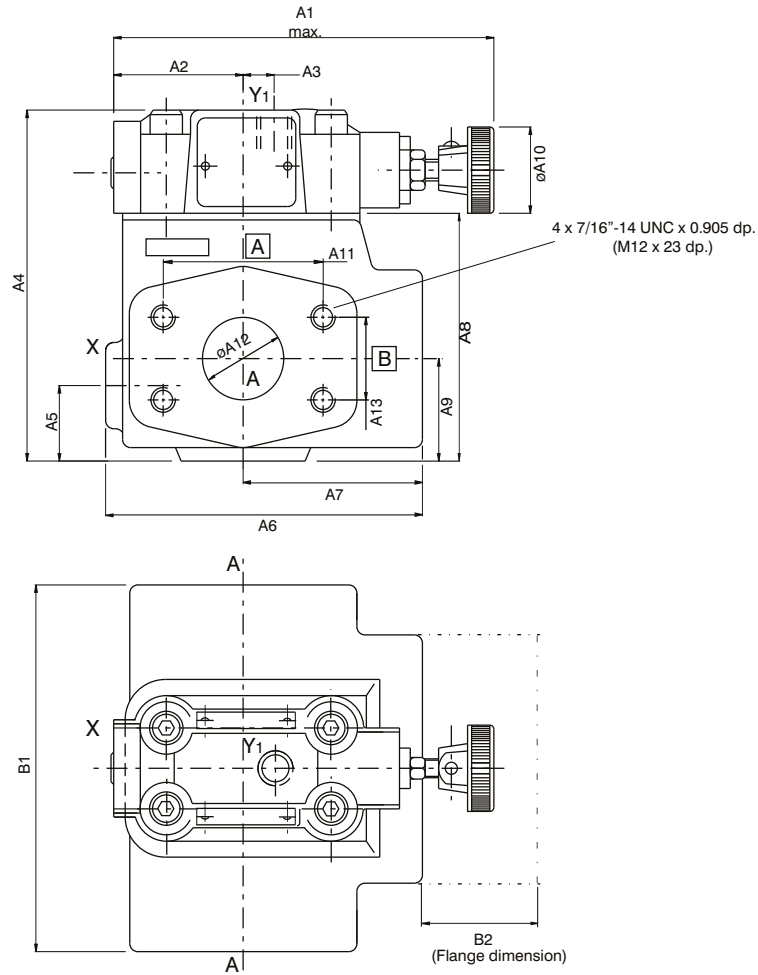
Dimensions		
	in	mm
A1	5.55	141.0
A2	1.89	48.0
A3	0.453	11.5
A4	5.12	130.0
A5	1.102	28.0
A6	4.626	117.5
A7	2.62	66.5
A8	3.622	92.0
A9	1.496	38.0
A10	ø 1.26	ø 32.0

Dimensions		
	in	mm
B1	5.35	136.0

Ports	Function	Port Sizes
A(2)	Pressure (inlet)	1" NPTF or G 1" or SAE - 16 (1 5/16" - 12 UNF)
B	Secondary (outlet)	1" NPTF or G 1" or SAE - 16 (1 5/16" - 12 UNF)
X	Remote control or vent connection	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)
Y1	External drain	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)

VR4S06 (3/4") - FLANGE BODY ( #2 )

Weight : 14.5 lbs (6.6 kg)



PC

	Dimensions	
	in	mm
A1	5.55	141.0
A2	1.89	48.0
A3	0.453	11.5
A4	5.12	130.0
A5	1.102	28.0
A6	4.626	114.3
A7	2.5	63.5
A8	3.622	92.0
A9	1.5	38.1
A10	ø 1.26	ø 32.0
A11	2.307	58.6
A12	ø 1.18	ø 30.0
A13	1.188	30.2

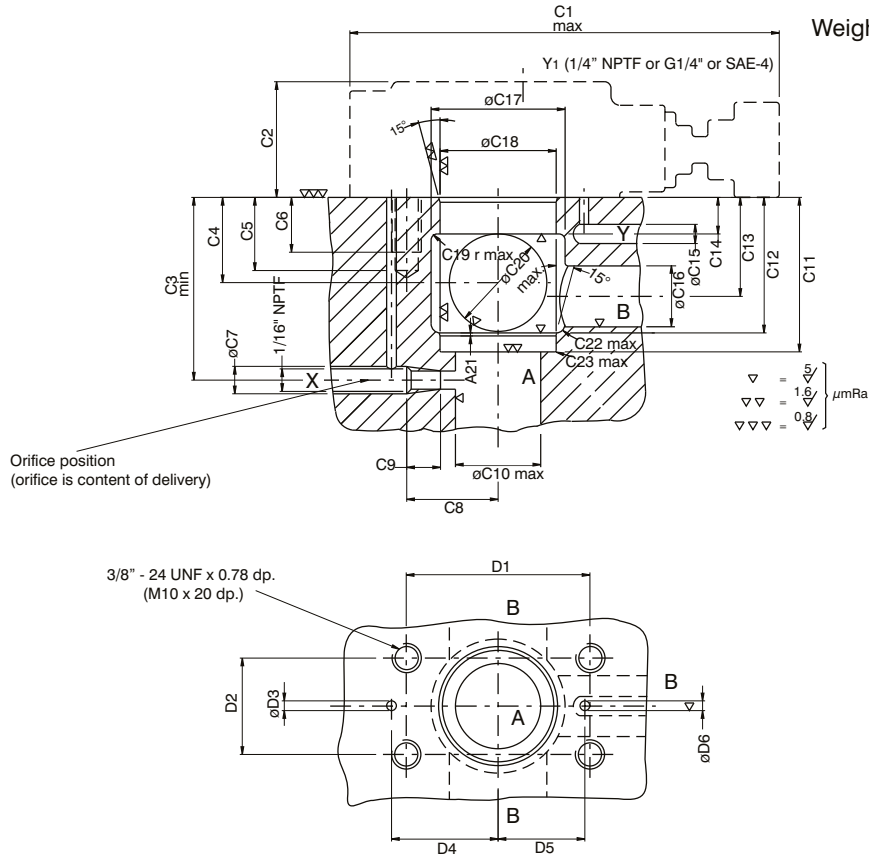
	Dimensions	
	in	mm
B1	5.35	136.0
B2	1.56	39.8

Ports	Function	Flange model no	Flange order no	Port Sizes
A(2x)	Pressure (inlet)	VFS4 - B - 20 - 26 or	VS14 - 66935 or	1/4" B.S.P.P or
B	Secondary port (outlet)	VFS4 - P - 20 - 26	VS14 - 66927	1/4" NPTF
X	Remote control or vent connection			1/4" B.S.P.P or
Y <sub>1</sub>	External drain			1/4" NPTF

Flanges must be ordered separately.  
Mounting screws are included in flange order.

CARTRIDGES WITH PILOT VALVES VR4S06/VR4S10 (#0, #E & #G)

Weight : 2.64 lbs (1.2 kg)



Dimensions	in		mm	
C1	5.55	141.0		
C2	1.49	38.0		
C3	2.362	60		
C4	1.083 <sup>+0.019</sup>	27.5 <sup>+0.5</sup>		
C5	0.945	24.0		
C6	0.78	20.0		
C7	ø 0.35	ø 9.0		
C8	1.18	30.0		
C9	0.437	11.1		
C10	ø 1.1	ø 28.0		
C11	1.997 <sup>+0.003</sup>	50.73 <sup>+0.07</sup>		
C12	1.75	44.5		
C13	1.28	32.5		
C14	0.47	12.0		
C15	ø 0.25	ø 6.3		
C16	ø 0.79	ø 20		
C17	ø 1.732 <sup>+0.04</sup>	ø 44.0 <sup>+1.0</sup>		
C18	ø 1.5 <sup>H8</sup>	ø 38.1 <sup>H8</sup>		
C19	0.08 r	2.0 r		
C20	ø 1.26	ø 32.0		
C21	0.04	1.0		
C22	0.08 r	2.0 r		
C23	0.016 r	0.4 r		

Dimensions	in		mm	
D1	2.375 <sup>+0.008</sup>	60.32 <sup>+0.2</sup>		
D2	1.25 <sup>+0.008</sup>	31.75 <sup>+0.2</sup>		
D3	ø 0.126	ø 3.2		
D4	1.38	35.0		
D5	1.12	28.5		
D6	ø 0.126	ø 3.2		

Ports	Function
A	Pressure (inlet)
B	Secondary (outlet)
X	External control connection
Y, Y <sup>(1)</sup>	Drain

Port Y<sup>(1)</sup> is only available at drain line (code 2) external from the pilot head.

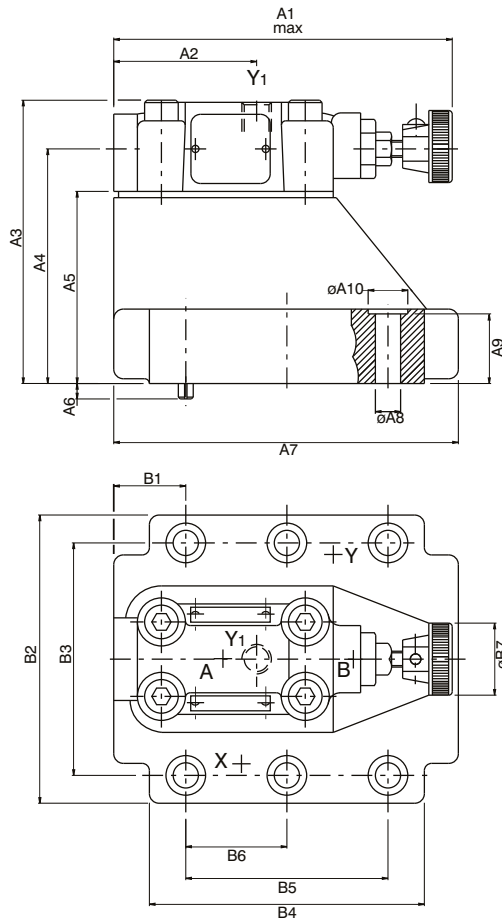
4 Mounting screws*	
Dimensions	Order No.
3/8" - 24 UNF x 1 3/4" lg. or M10 x 45mm, DIN 912 - 12.9	V359 - 15220 or V700 - 71602

\* Mounting screws must be ordered separately

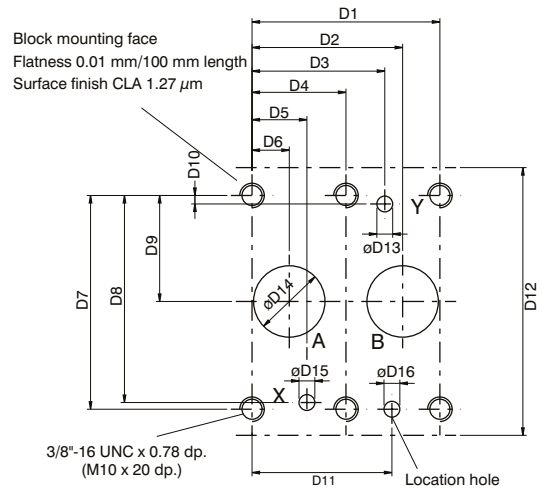
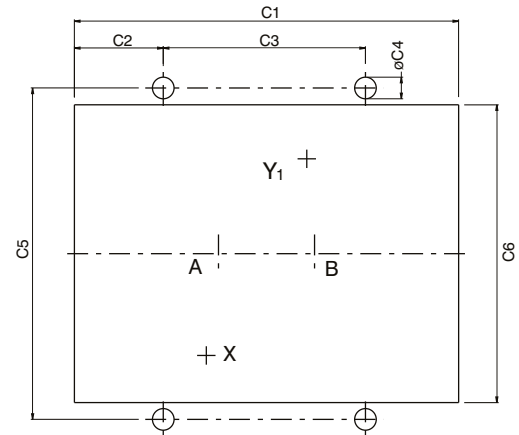
PC

VR4S10 (1 1/4") SUBPLATE MOUNTING BODY (#3, #7 & #9)

Weight : 13.2 lbs (6.0 kg)



Panel opening



Dimensions		
	in	mm
A1	5.55	141.0
A2	2.34	59.5
A3	4.645	118.0
A4	3.846	97.7
A5	3.15	80.0
A6	0.25	6.4
A7	5.645	143.5
A8	ø 0.41	ø 10.5
A9	1.14	29.0
A10	ø 0.65	ø 16.5

Dimensions		
	in	mm
B1	1.181	30.0
B2	4.72	120.0
B3	3.8	96.8
B4	4.51	114.5
B5	3.315	84.2
B6	1.657	42.1
B7	ø 1.26	ø 32.0

Dimensions		
	in	mm
C1	6.3	160.0
C2	1.456	37.0
C3	3.315	84.2
C4	ø 0.35	ø 9.0
C5	5.433	138.0
C6	4.88	124.0

Dimensions		
	in	mm
D1	3.315	84.2
D2	2.657	67.5
D3	2.342	59.5
D4	1.657	42.1
D5	0.97	24.6
D6	0.657	16.7
D7	3.8	96.8
D8	3.653	92.8
D9	1.87	48.4
D10	0.15	3.8
D11	2.468	62.7
D12	4.724	120.0
D13	ø 0.28	ø 7.1
D14	ø 1.26	ø 32.0
D15	ø 0.28	ø 7.1
D16	ø 0.28 x 0.433 dp.	ø 7.1 x 11.0 dp.

Ports	Function
A	Pressure (inlet)
B	Secondary (outlet)
X	Remote control or vent connection
Y(Y <sub>1</sub> )	External drain <sup>1)</sup>

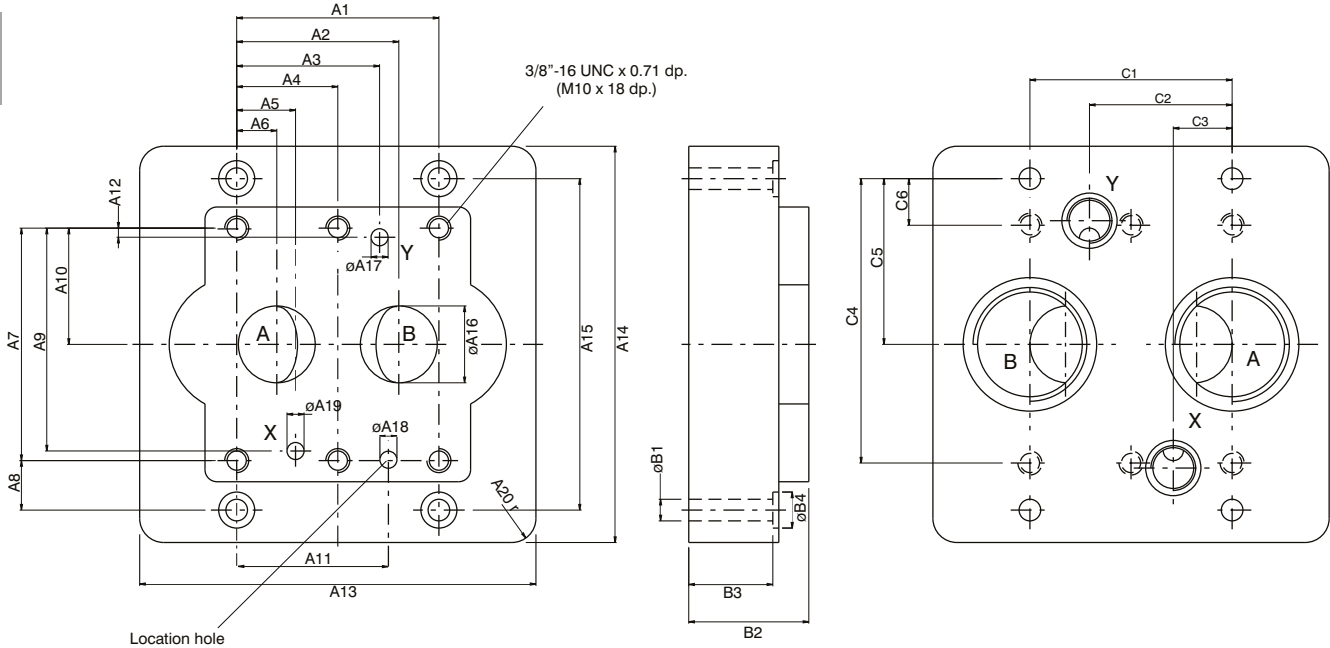
1) Optional from pilot head or subplate. Port Y<sub>1</sub> is only available at drain line (code 2) external from the pilot head.

Note : For details of Subplate & mtg. screws please refer page 58

Subplate for VR4S10

Weight : 19.1 lbs (8.5 kg)

PC



Dimensions	in		mm	
A1	3.315		84.2	
A2	2.657		67.5	
A3	2.342		59.5	
A4	1.657		42.1	
A5	0.968		24.6	
A6	0.657		16.7	
A7	3.811		96.8	
A8	0.811		20.6	
A9	3.653		92.8	
A10	1.905		48.4	
A11	2.468		62.7	
A12	0.15		3.8	
A13	6.535		166.0	
A14	6.5		165.0	
A15	5.43		138.0	
A16	ø 1.26		ø 32.0	
A17	ø 0.28		ø 7.1	
A18	ø 0.28 x 0.315 dp.		ø 7.1 x 8.0 dp.	
A19	ø 0.28		ø 7.1	
A20	0.4 r		10.0 r	

Dimensions	in		mm	
B1	ø 0.351		ø 9.0	
B2	1.97		50.0	
B3	1.38		35.0	
B4	ø 0.59		ø 15.0	

Dimensions	in		mm	
C1	3.315		84.2	
C2	2.342		59.5	
C3	0.97		24.6	
C4	4.66		118.4	
C5	2.716		69.0	
C6	0.764		19.4	

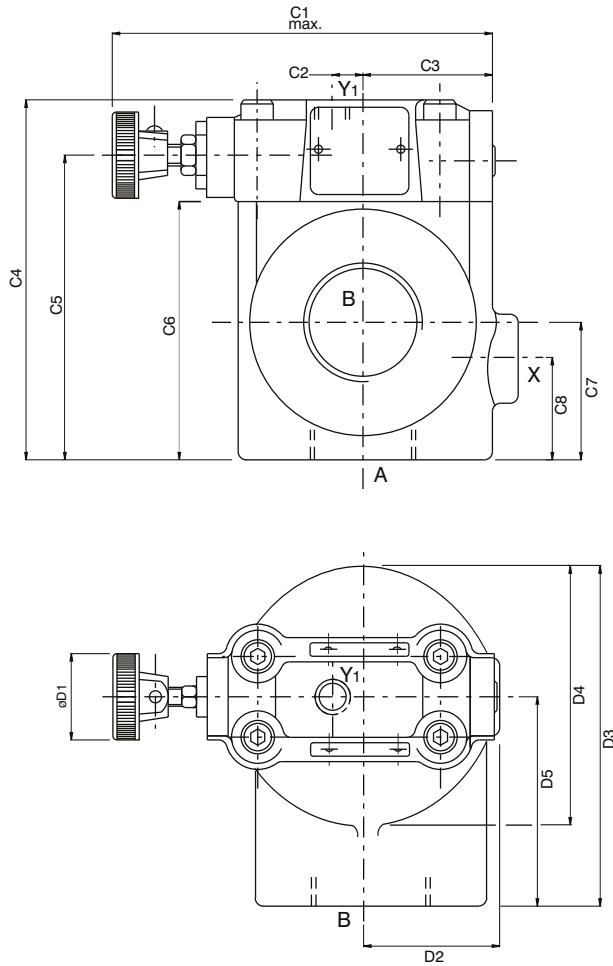
Order No.	Port sizes		4 Mounting screws*		
	A+B	X+Y	Dimension	Order no	min.tensile strength
VSS - P - 24 - G 116	1½" NPTF	1/4" NPTF	3/8"- 16UNC 1¼" lg.	V358-16220	at p ≤ 210 bar = 100 daN/mm <sup>2</sup> (Torque 68 Nm)
VSS - B - 24 - G 117	1½" B.S.P.P	1/4" B.S.P.P.	M 10 x 45 DIN 912-12.9	V700-71602	at p > 210 bar = 120 daN/mm <sup>2</sup> (Torque 82 Nm)

\* Mounting screws are included in subplate order.  
For valves ordered without subplate, mounting screws must be ordered separately.

VR4S10 (1 1/4") - THREADED BODY ( #A, #B & #D )

Weight : 12.3 lbs (5.6 kg)

PC



Dimensions		
	in	mm
C1	5.55	141.0
C2	0.453	11.5
C3	1.89	48.0
C4	5.236	133.5
C5	4.45	113.0
C6	3.76	95.5
C7	2.01	51.0
C8	1.496	38.0

Dimensions		
	in	mm
D1	ø 1.26	ø 32.0
D2	2.01	51.0
D3	4.75	120.6
D4	3.374	85.7
D5	3.063	77.8

Ports	Function	Port Sizes
A	Pressure (inlet)	1 1/4" NPTF or G 1 1/4" or SAE - 20 (1 5/8" - 12 UNF)
B	Secondary (outlet)	1 1/4" NPTF or G 1 1/4" or SAE - 20 (1 5/8" - 12 UNF)
X <sup>1)</sup>	Remote control or vent connection	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)
Y <sub>1</sub>	External drain	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)

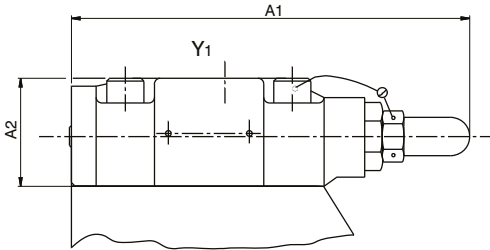
1) closed when supplied

OPTIONAL CONTROL

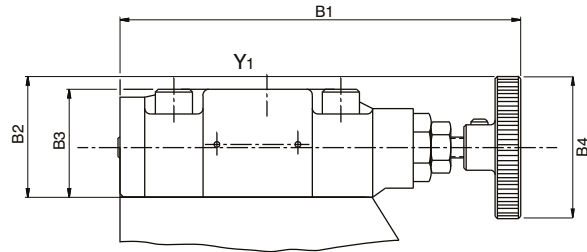
Type of control - Code 3  
Acron nut with lead seal

Type of control - Code 2  
Hand knob 50mm dia  
(not for version with vent valve VVV01)

PC



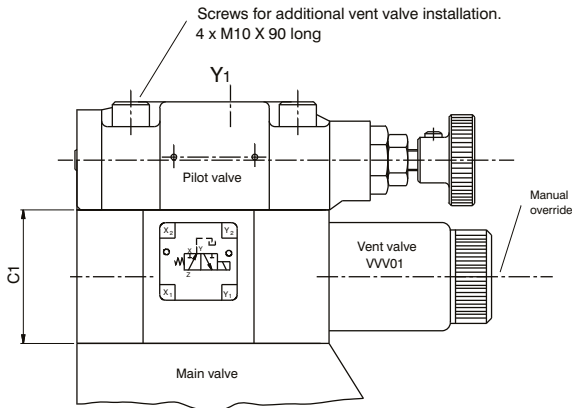
Dimensions		
	in	mm
A1	5.51	140.0
A2	1.49	38.0



Dimensions		
	in	mm
B1	5.55	141.0
B2	1.67	42.5
B3	1.49	38.0
B4	ø 1.96	ø 50.0

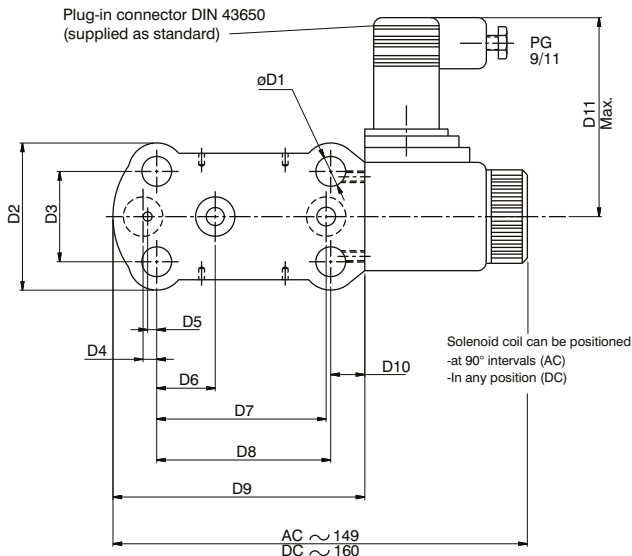
Version with Vent Valve VVV01

Weight (VVV01) : 3.73 lbs (1.7 kg)



Dimensions		
	in	mm
C1	1.85	47.0

Dimensions		
	in	mm
D1	ø 0.41	ø 10.5
D2	2.03	51.8
D3	1.25	31.8
D4	0.18	4.8
D5	0.12	3.2
D6	0.81	20.6
D7	2.31	58.7
D8	2.37	60.3
D9	3.49	88.7
D10	0.51	13.0
D11	2.75	70.0



Code	External Drain
11 or 12	
09 or 10	