

SPECIFICATIONS

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 ₁ (Pilot drain)	:	Without pressure to tank
Nominal flow gpm (lpm)	:	VR4S 03 (3/8") 15.8 (60) VR4S 06 (3/4") 52.9 (200) VR4S 10 (1 1/4") 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

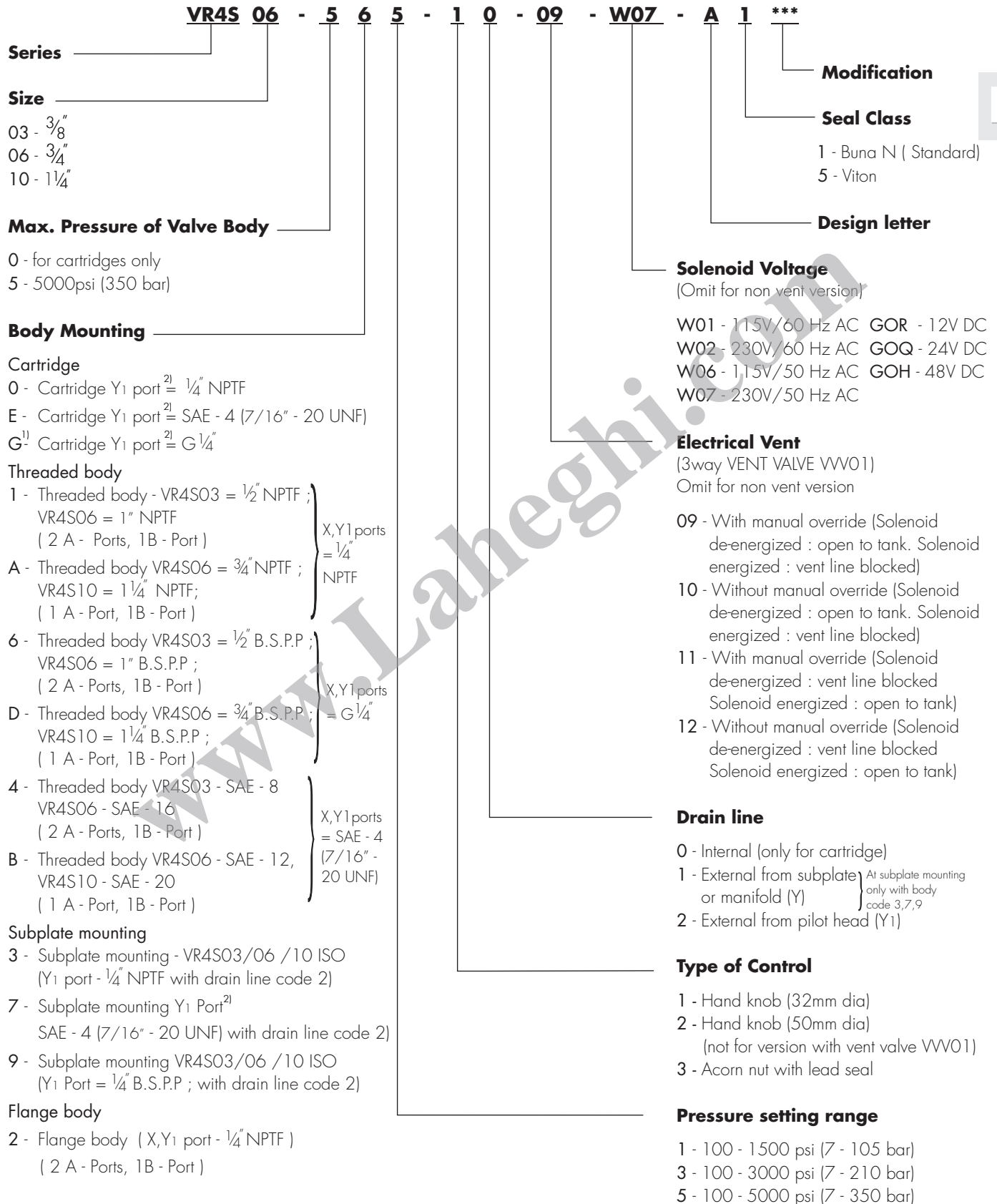
Adjustment

Manual	:	Handwheel
Rotation	:	3.75 rev.
Operating torque	:	0.72 Nm

Electricals (Vent Valve VVV01)

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

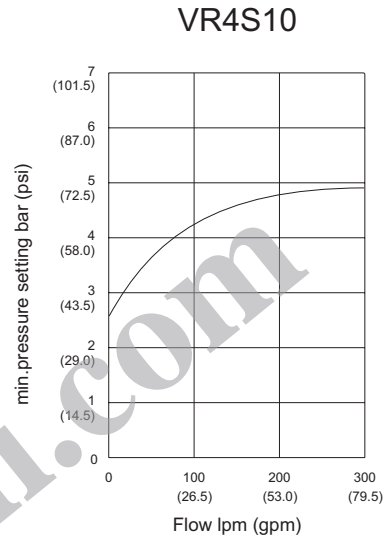
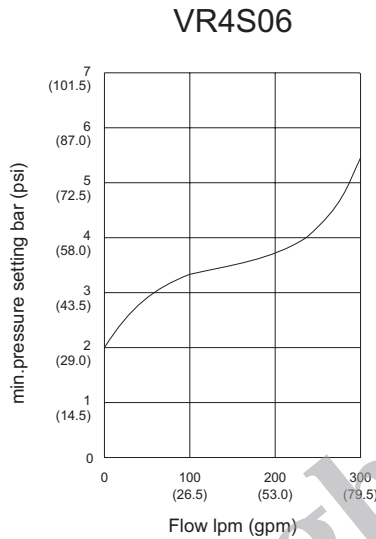
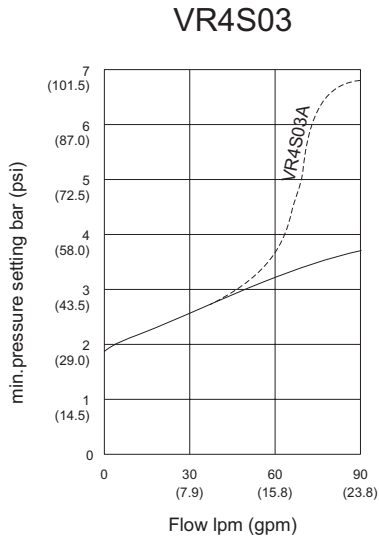
2) Port Y1 is only available at Drain line (code2) external from pilot head.

PERFORMANCE CURVES

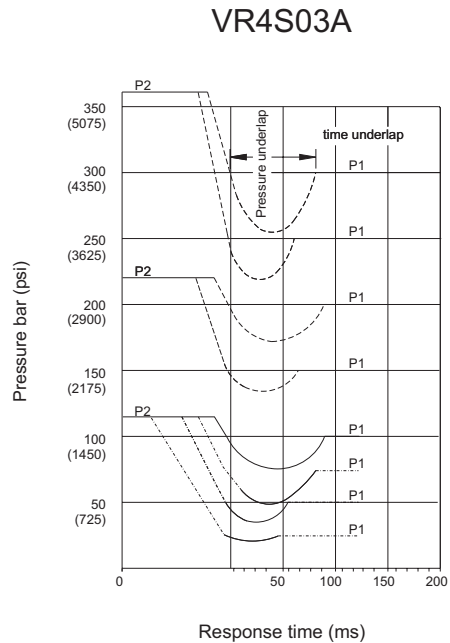
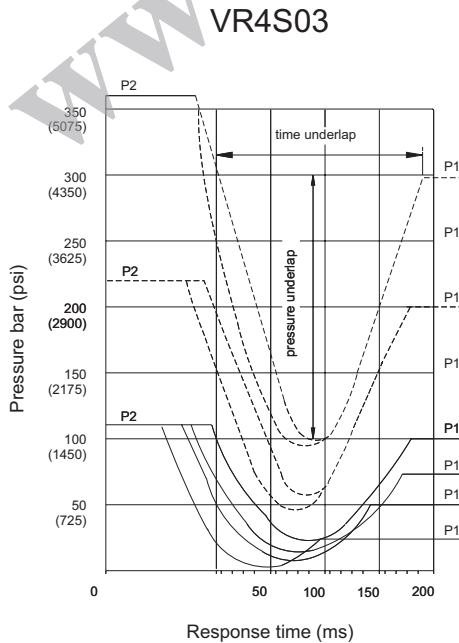
ps min - qv characteristics

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

PC

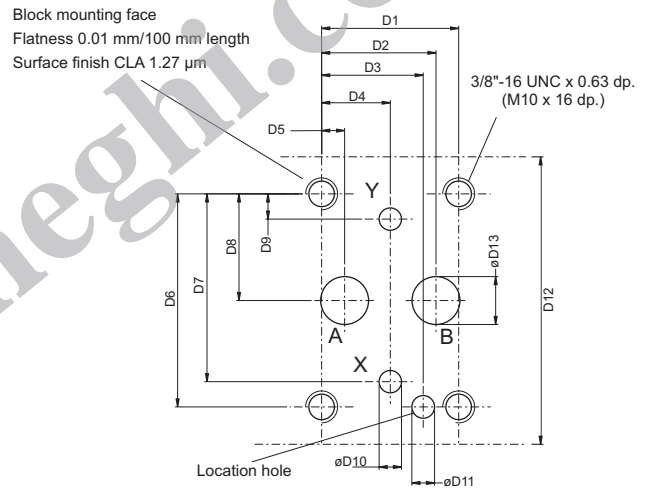
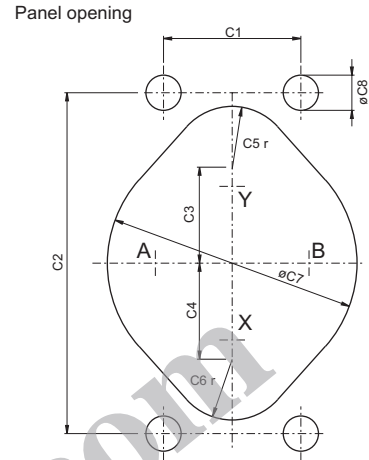
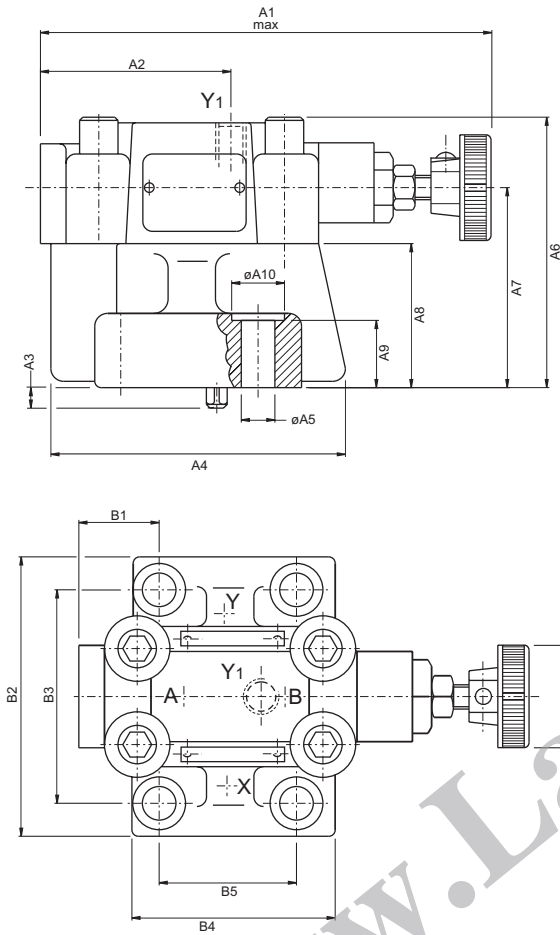


Pressure Characteristics at Closing Point
 P1 = primary pressure
 P2 = secondary pressure (to actuator)



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

Weight : 5.93 lbs (2.7 kg)



Dimensions	Dimensions	
	in	mm
A1	5.55	141.0
A2	2.34	59.5
A3	0.25	6.4
A4	3.62	92.0
A5	ø0.41	ø10.5
A6	3.33	84.5
A7	2.46	62.5
A8	1.77	45.0
A9	0.83	21.0
A10	ø0.65	ø16.5

Dimensions	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	ø1.26	ø32.0

Dimensions	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	ø3.07	ø78.0
C8	ø0.43	ø11.0

Dimensions	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	ø0.275	ø7.0
D11	ø0.28 x 0.315 dp.	ø7.1 x 8.0 dp.
D12	3.543	90.0
D13	ø0.59	ø15.0

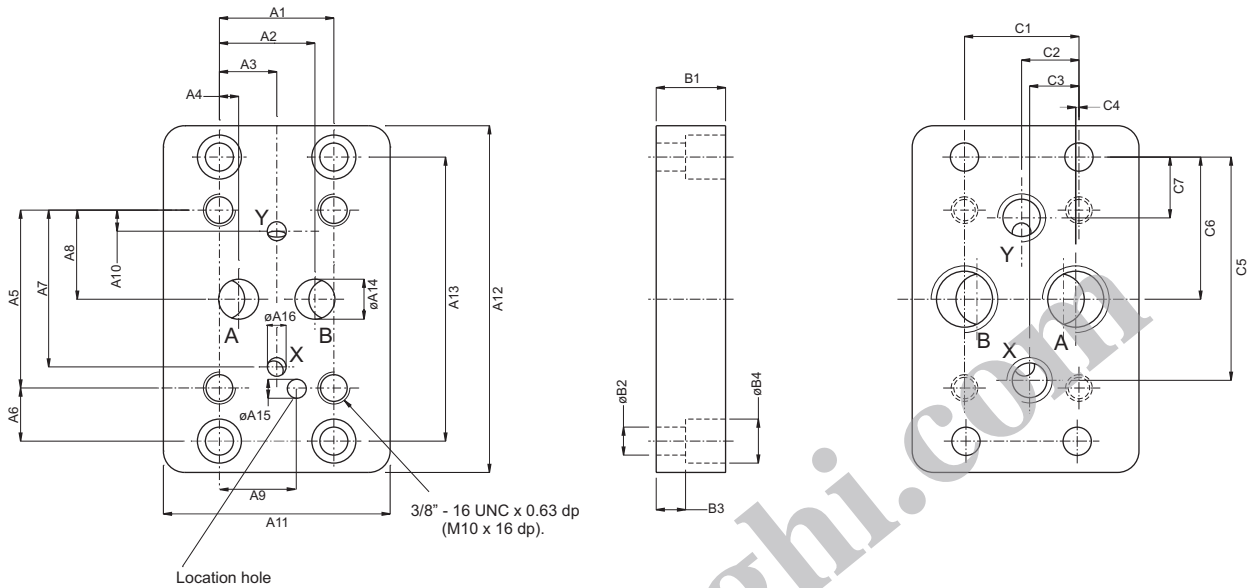
Ports	Function
A	Pressure (inlet)
B	Secondary (outlet)
X	Remote control or vent connection
Y(Y ₁)	External drain ¹⁾

1) Optional from pilot head or subplate.
Port Y₁ is only available at Drain line (code 2) external from the pilot head

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	ø0.59	ø15.0
A15	ø0.28 x 0.315 dp.	ø7.1 x 8.0 dp.
A16	ø0.275	ø7.0

	Dimensions	
	in	mm
B1	1.024	26.0
B2	ø0.41	ø10.5
B3	0.433	11.0
B4	ø0.65	ø16.5

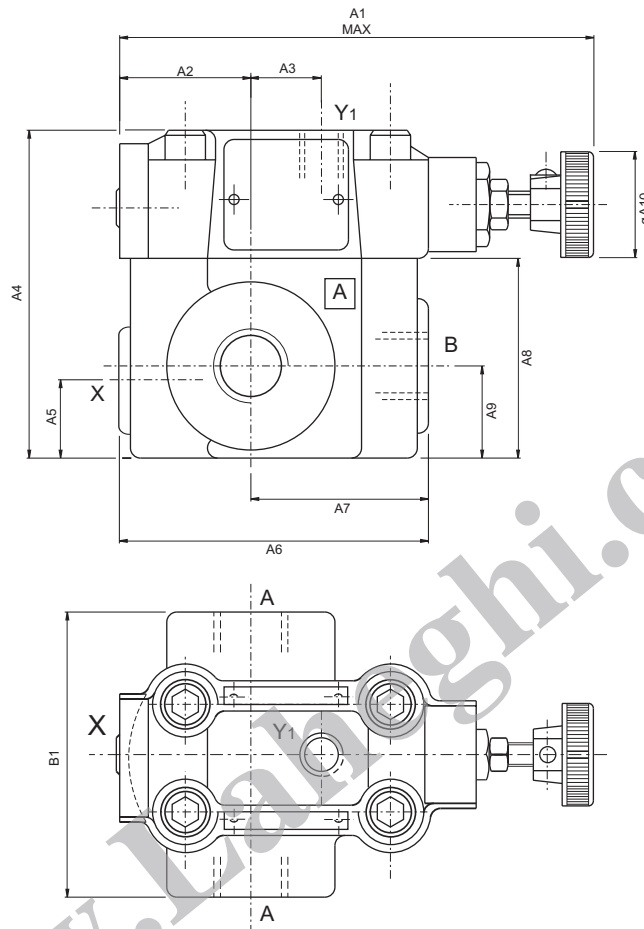
	Dimensions	
	in	mm
C1	1.69	42.9
C2	0.846	21.5
C3	0.73	18.5
C4	0.047	1.2
C5	3.295	83.7
C6	2.1	53.3
C7	0.9	22.8

Order No.	Port sizes		4 Mounting screws*		
	A+B	X+Y	Dimension	Order No.	min.tensile strength
VSS - P - 08 - G 112	1/2" NPTF	1/4" NPTF	3/8"- 16UNC 1 1/4 lg.	V358 - 16180	at p ≤ 210 bar = 100 daN/mm ² (Torque 68 Nm)
VSS - B - 08 - G 113	1/2" B.S.P.P	1/4" B.S.P.P.	M10 x 35mm DIN 912 - 12.9	V700 - 70039	at p > 210 bar = 120 daN/mm ² (Torque 82 Nm)

* 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)



	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	1.26	32.0

	Dimensions	
	in	mm
B1	3.34	84.8

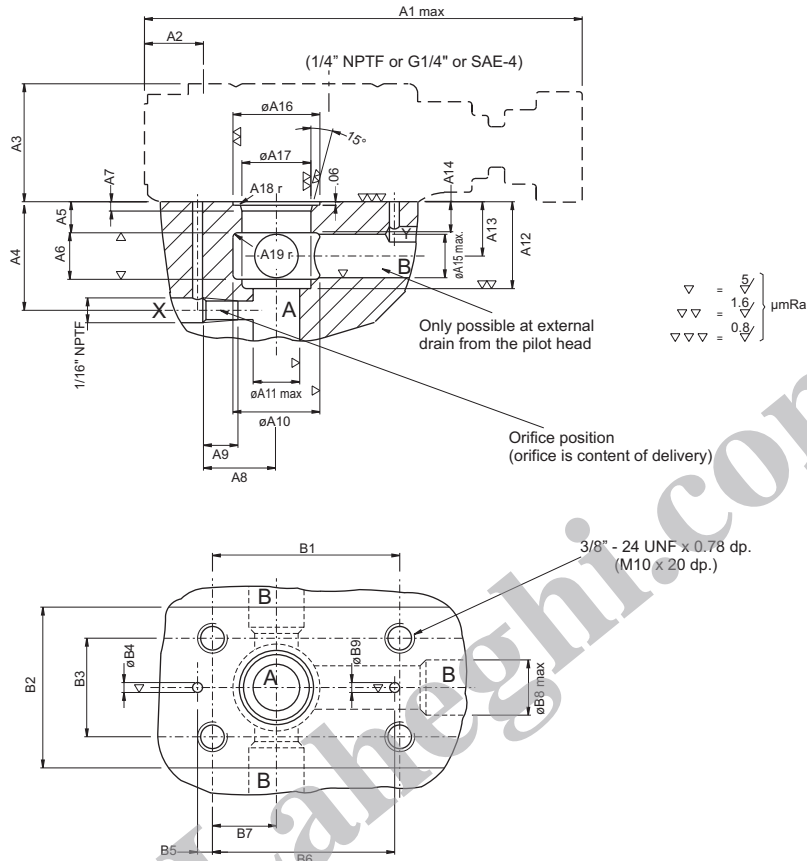
Ports	Function	Port Sizes
A(2)	Pressure (inlet)	1/2" NPTF or G 1/2" or SAE - 8 (3/4" - 16 UNF)
B	Secondary port (outlet)	1/2" NPTF or G 1/2" or SAE - 8 (3/4" - 16 UNF)
X ¹⁾	Remote control or vent connection	1/4" NPTF or G 1/4" or SAE - 4 (7/16" - 20 UNF)
Y ₁	External drain	1/4" NPTF or G 1/4" or SAE - 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	ø28.0
A11	ø0.6	ø15.0
A12	1.1	28.0
A13	0.69	17.5
A14	0.1	10.0
A15	ø0.55	ø14.0
A16	ø1.1 ^{+0.004}	ø28.0 ^{+0.1}
A17	ø0.875 ^{+0.0008}	ø22.225 ^{+0.02}
A18	0.016	0.4
A19	0.06	1.5

	Dimensions	
	in	mm
B1	2.375 ^{±0.008}	60.32 ^{±0.2}
B2	2.04	51.8
B3	1.25 ^{±0.008}	31.75 ^{±0.2}
B4	ø0.126	ø3.2
B5	0.19	4.8
B6	2.31	58.7
B7	0.81	20.6
B8	ø0.7	ø17.8
B9	ø0.126	ø3.2

Ports	Function
A	Pressure (Inlet)
B	Secondary port (Outlet)
X	External control connection
Y, Y ₁ ¹⁾	Drain

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

1) Port Y₁ is only available at Drain line (code 2) external from the pilot head.

* Mounting screws must be ordered separately