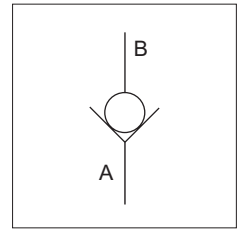


Veljan Direct operated Check Valve Series VC4V are poppet type and designed for a maximum pressure of 350 bar and a flow capacity ranging from 180 l/min for a 3/8" valve to 600 l/min for 1 1/2" valve. Mounting configuration of VC4V are in accordance with International standards such as CETOP, ISO, DIN or NFPA. Subplate mounting, L - body and T - body are standard. VC4V valves can be used as body type units or cartridges for manifold applications.



A zero-leak condition can be achieved for flow from port B to port A and free flow in the opposite direction. Due to a precise ratio between the main piston area and its mass, an exceptional fast response can be obtained. Only a small opening stroke of the poppet causes free flow from port A to port B.

## SPECIFICATIONS

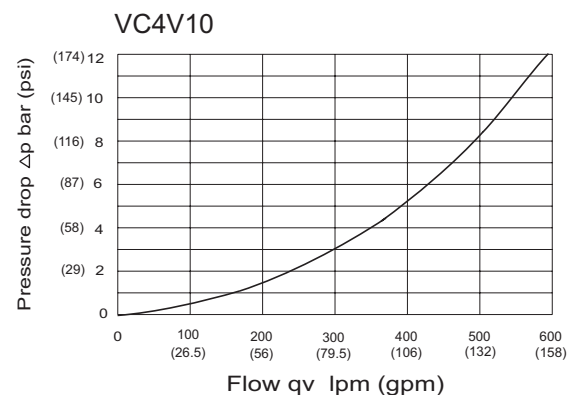
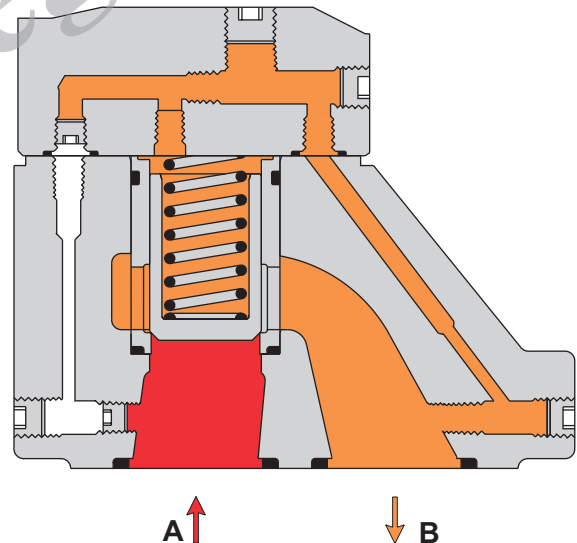
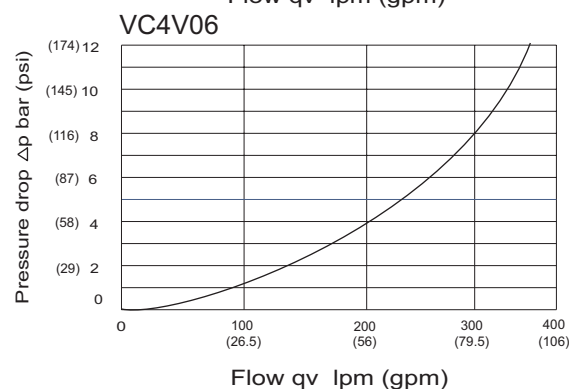
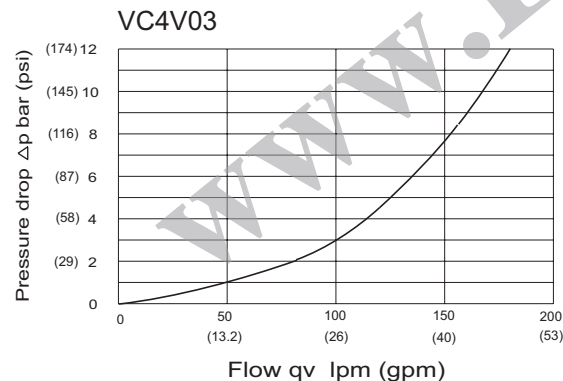
### General

Type	: Direct operated check valve
Design	: Poppet type
Mounting	: VC4V03 : Threaded body/ Subplate mounting/Cartridge
	: VC4V06 : Threaded body/ Subplate mounting/Cartridge
	: VC4V10 : Threaded body/ Subplate mounting
Mounting position	: Optional
Port sizes (nominal)	: 3/8", 3/4", 1 1/2"
Type of port	: Threads
Direction of flow	: A → B
Ambient temperature	: -20°C...+60°C (-4°F...+140°F)
Special working conditions	: Consult <b>VELJAN</b>

### Hydraulics

Operating Pressure range	: 0 - 5000 psi (0 - 350bar)
Cracking pressure	: See model code
Flow gpm (lpm)	: Maximum      Nominal
	VC4V 03 ( 3/8" )      48 (180)      40 (150)
	VC4V 06 ( 3/4" )      95 (360)      72 (270)
	VC4V10 ( 1 1/2" )      59 (600)      120 (450)
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 recommended	: 30 cSt (180 SSU)

## PERFORMANCE CURVES



**ORDERING CODE**

**VC4V 10 - 5 3 0 - 4 B 1 - \*\*\***

**Series** \_\_\_\_\_  
 VC4V - Check valve (direct operated)

**Size** \_\_\_\_\_  
 03 - 3/8"  
 06 - 3/4"  
 10 - 1 1/2"

**Max Pressure** \_\_\_\_\_  
 0 - for cartridges only } 5000 psi  
 5 - for body valves only } (350 bar)

**Body Mounting** \_\_\_\_\_  
 Cartridge  
 0 - Cartridge (VC4V03/VC4V06)  
 Threaded body  
 1 - Threaded body - VC4V03 = 1/2" NPTF ;  
 VC4V06 = 1" NPTF  
 ( 2 A - Ports, 1 B - Port )  
 A - Threaded body - VC4V06 = 3/4" NPTF ;  
 VC4V10 = 1 1/4" NPTF  
 ( 1 A - Port, 1 B - Port )  
 6 - Threaded body - VC4V03 = 1/2" B.S.P.P. ;  
 VC4V06 = 1" B.S.P.P.  
 ( 2 A - Ports, 1 B - Port )  
 D - Threaded body - VC4V06 = 3/4" B.S.P.P. ;  
 VC4V10 = 1 1/4" B.S.P.P.  
 ( 1 A - Port, 1 B - Port )  
 Subplate mounting  
 3 - Subplate mounting VC4V03/06/10  
 Flange body  
 2 - Flange body - VC4V06  
 ( 2 A - Ports, 1 B - Port )

**Modification**

**Seal Class**

1 - Buna N ( Standard)  
 5 - Viton

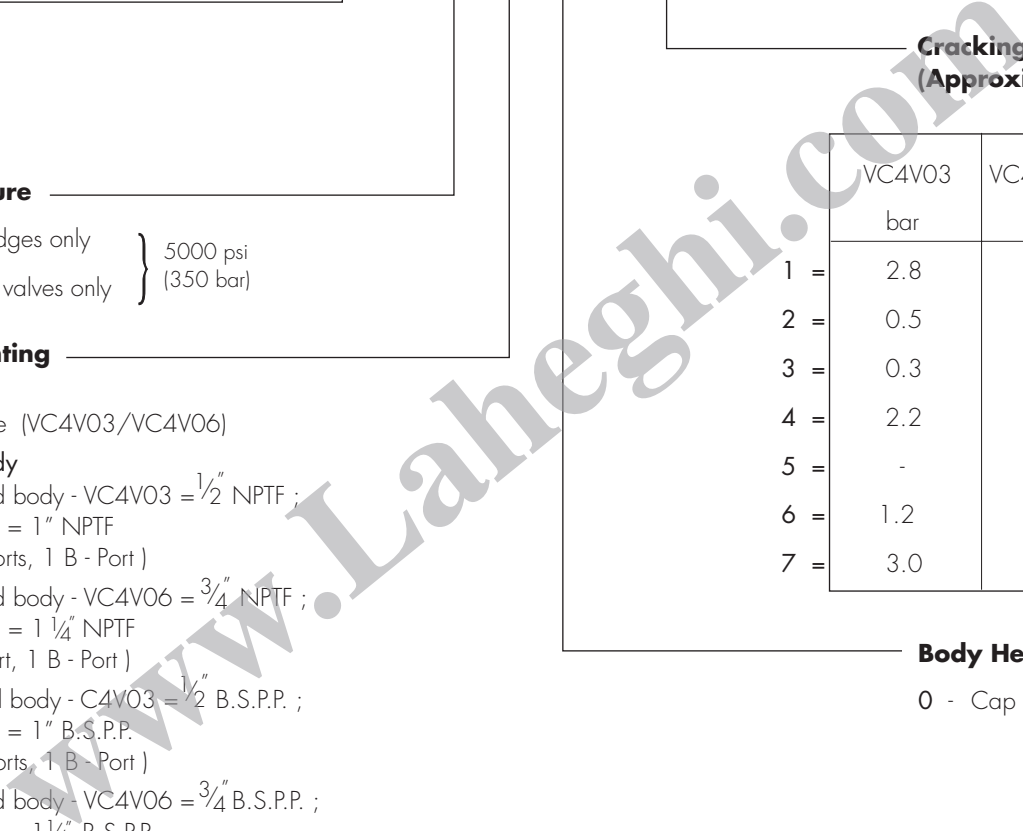
**Design letter**

**Cracking pressure (Approximate )**

	VC4V03	VC4V06/10
	bar	bar
1 =	2.8	3.5
2 =	0.5	0.5
3 =	0.3	0.3
4 =	2.2	2.2
5 =	-	9.0
6 =	1.2	1.2
7 =	3.0	-

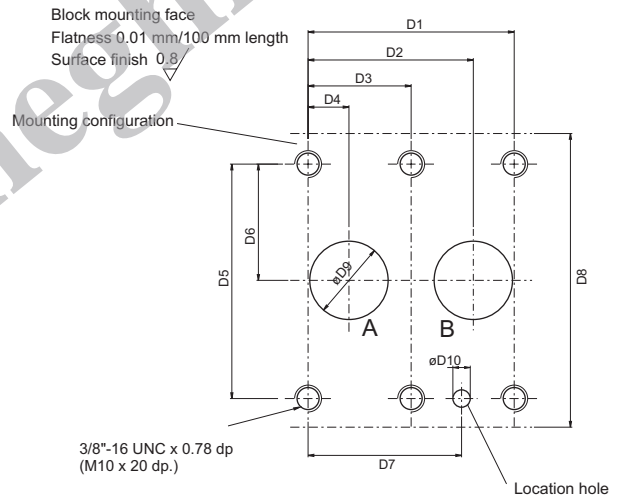
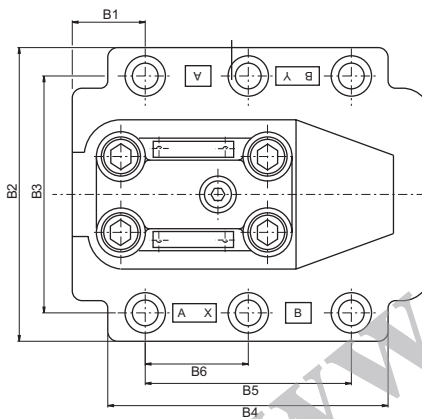
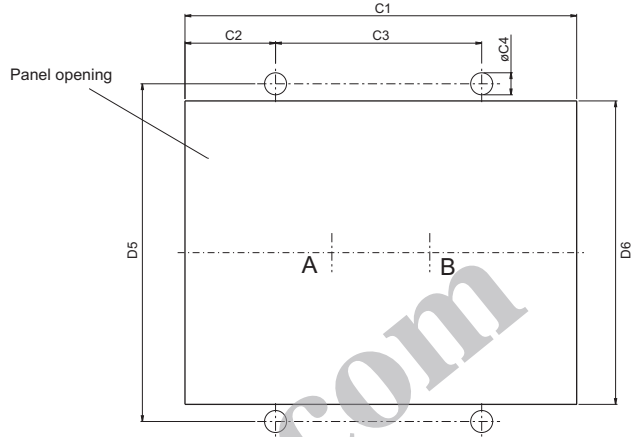
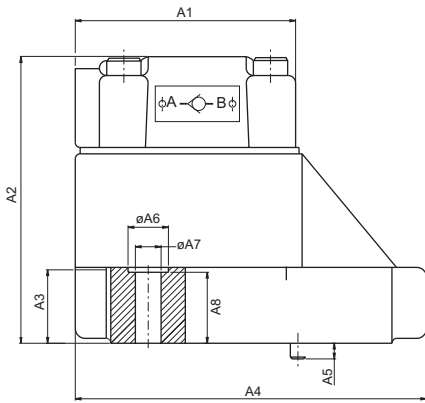
**Body Head**

0 - Cap



VC4V10 (1 1/2") SUBPLATE MOUNTING ( #3 )

Weight : 13.48 lbs (6.0 kg)



Dimensions	in	mm
	A1	3.54
A2	4.67	118.5
A3	1.182	30.0
A4	5.65	143.5
A5	0.25	6.35
A6	ø0.65	ø16.5
A7	ø0.41	ø10.5
A8	1.142	29.0

Dimensions	in	mm
	B1	1.174
B2	4.724	120.0
B3	3.8	96.8
B4	4.508	114.5
B5	3.315	84.2
B6	1.658	42.1

Dimensions	in	mm
	C1	6.3
C2	1.456	37.0
C3	3.315	84.2
C4	ø0.35	ø9.0
B5	5.433	138.0
C6	4.88	124.0

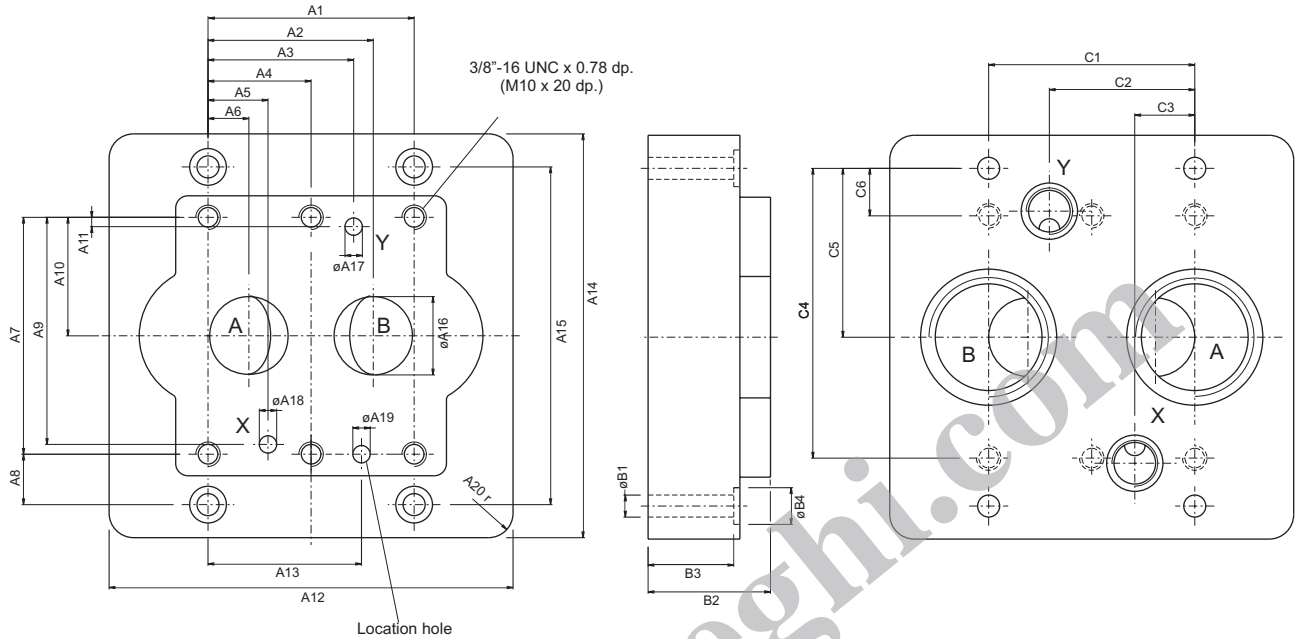
Dimensions	in	mm
	D1	3.345
D2	2.657	67.5
D3	1.657	42.1
D4	0.657	16.7
D5	3.811	96.8
D6	1.906	48.4
D7	2.47	62.7
D8	4.724	120.0
D9	ø1.26	ø32.0
D10	ø0.28 x 0.433 dp.	ø7.1 x 11.0 dp.

Ports	Function
A	Inlet
B	Outlet

Note : For details of Subplate & mtg. Screws please refer page 20

VC4V10 (1 1/2") SUBPLATE

Weight : 18.68 lbs (8.5 kg)



Dimensions	in	mm
	A1	3.315
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	0.15	3.8
A12	6.53	166.0
A13	2.47	62.7
A14	6.5	165.0
A15	5.43	138.0
A16	ø1.26	ø32.0
A17	ø0.28	ø7.1
A18	ø0.28	ø7.1
A19	ø0.28 x 0.433 dp.	ø7.1 x 11.0 dp.
A20	0.4r	10.0 r

Dimensions	in	mm
	B1	ø0.351
B2	1.97	50.0
B3	1.38	35.0
B4	ø0.59	ø15.0

Dimensions	in	mm
	C1	3.315
C2	2.342	59.5
C3	0.97	24.5
C4	4.66	118.4
C5	2.716	69.0
C6	0.764	19.4

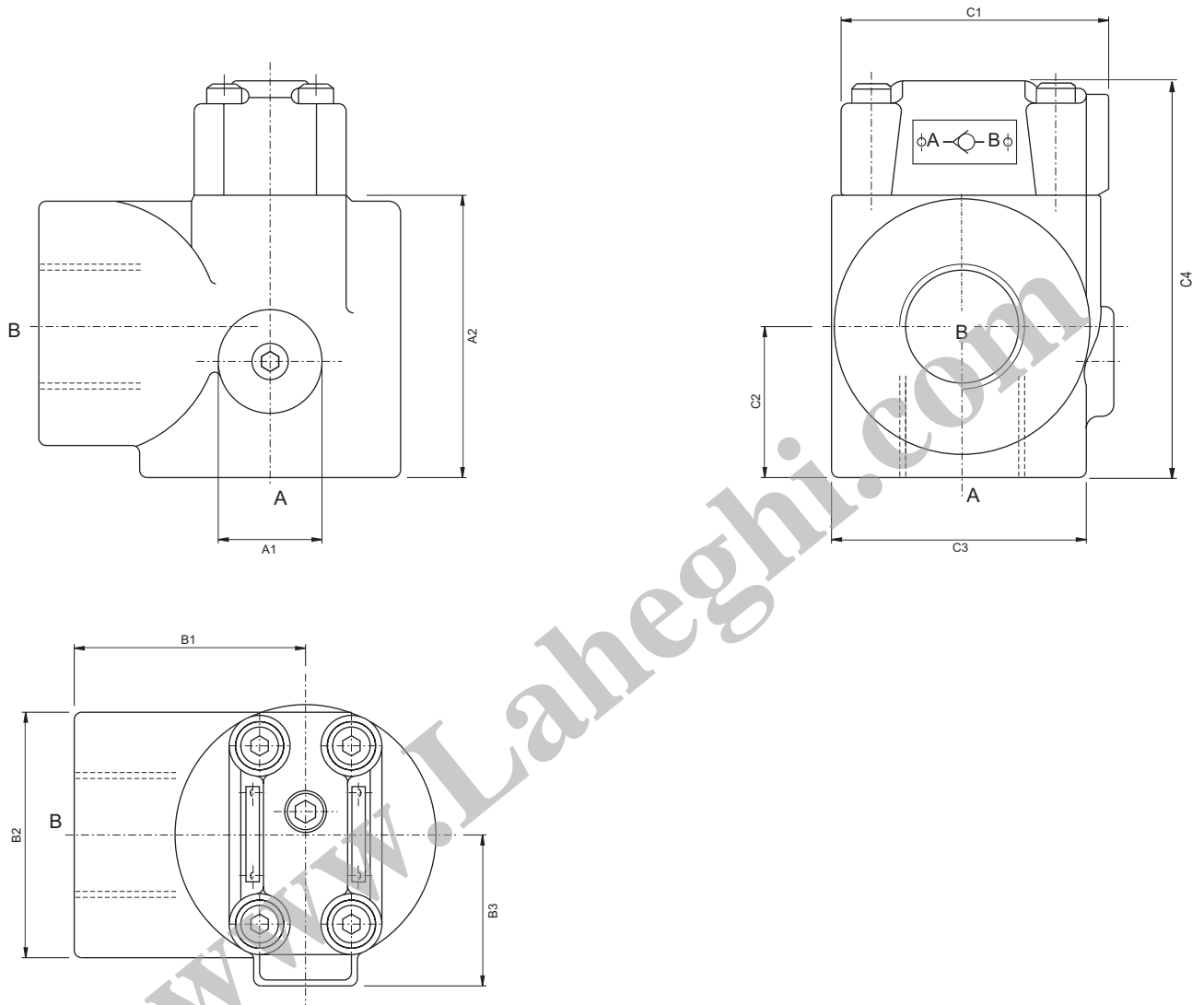
\*\*Note: Ports X and Y not required for direct operated check valve.

Order No.	Port sizes		Dimensions	6 Mounting screws*	
	A+B	X+Y**		Order No.	min.tensile strength
VSS - P - 24 - G 116	1 1/2" NPTF	1/4" NPTF	3/8" - 16UNC1 3/4" lg.	V358-16220	at p ≤ 210 bar = 100 daN/mm <sup>2</sup> (Torque 68 Nm)
VSS - B - 24 - G 117	1 1/2" 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.

VC4V10 (1 1/2") - THREADED BODY ( #A & #D )

Weight : 12.3 lbs (5.6 kg)



	Dimensions	
	in	mm
A1	1.374	34.9
A2	3.74	95.0

	Dimensions	
	in	mm
B1	3.063	77.8
B2	$\phi 3.252$	$\phi 82.6$
B3	2.0	50.8

	Dimensions	
	in	mm
C1	3.543	90.0
C2	2.0	50.8
C3	$\phi 3.374$	$\phi 85.7$
C4	5.256	133.5

Ports	Function	Port Sizes
A	Inlet	1 1/4" B.S.P.P
B	Outlet	1 1/4" NPTF