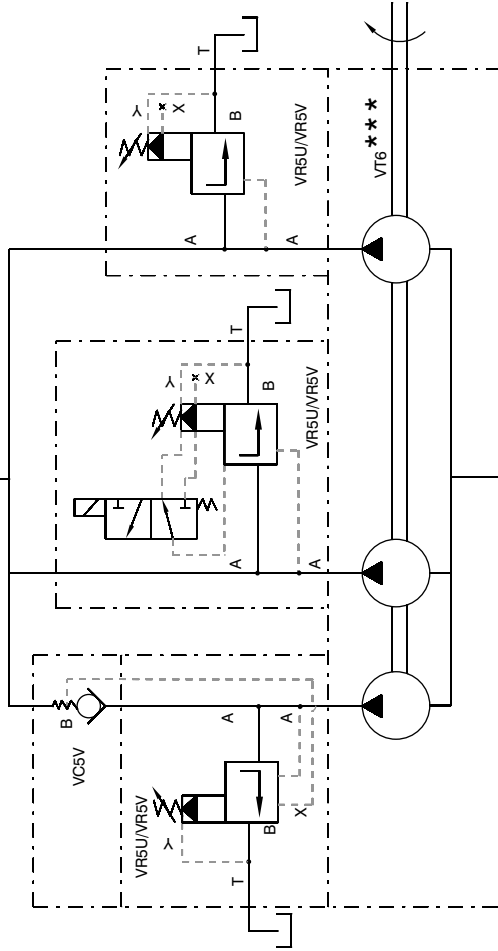
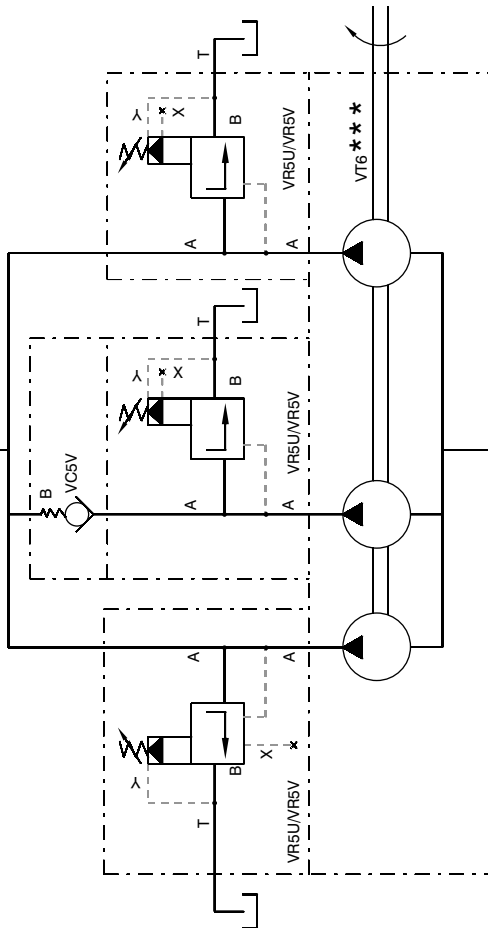


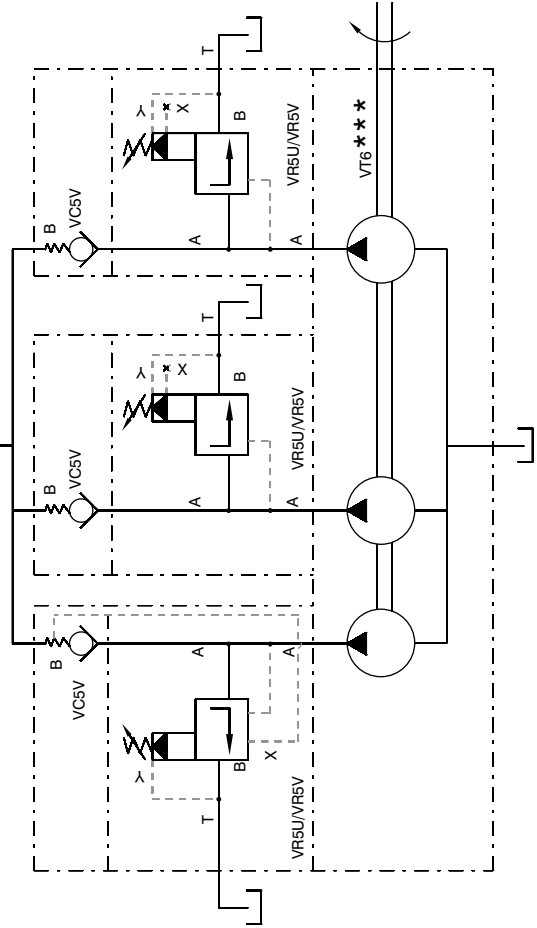
**Relief/Unloader valve (NV/NU) - P1 & Relief/Unloader with vent valve (VO-VB/UO-UB) - P2
Unloader/Relief with Check valve (NUD/NVC) - P3**



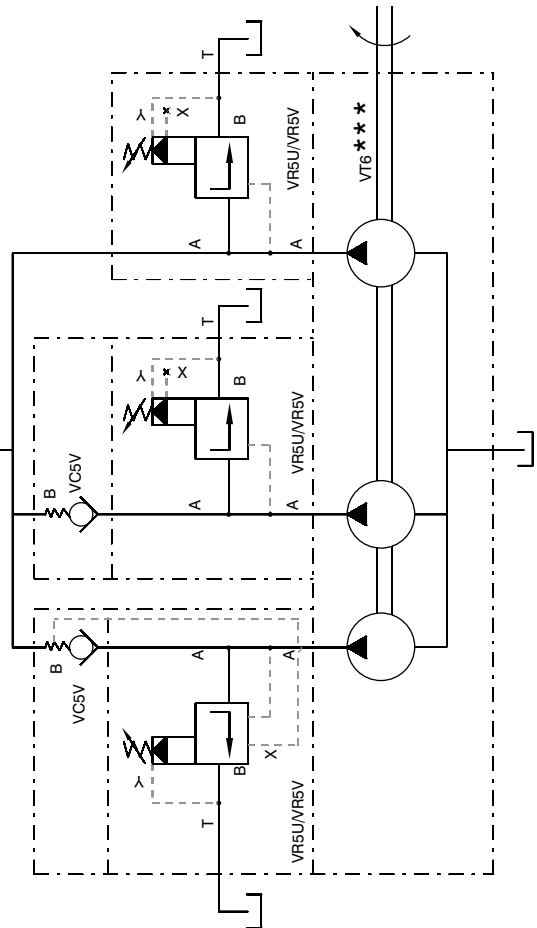
**Relief/Unloader valve (NV/NU) - P1
Unloader/Relief with check valve (NUD/NVC) - P2
Unloader/Relief valve (NU/NV) - P3**



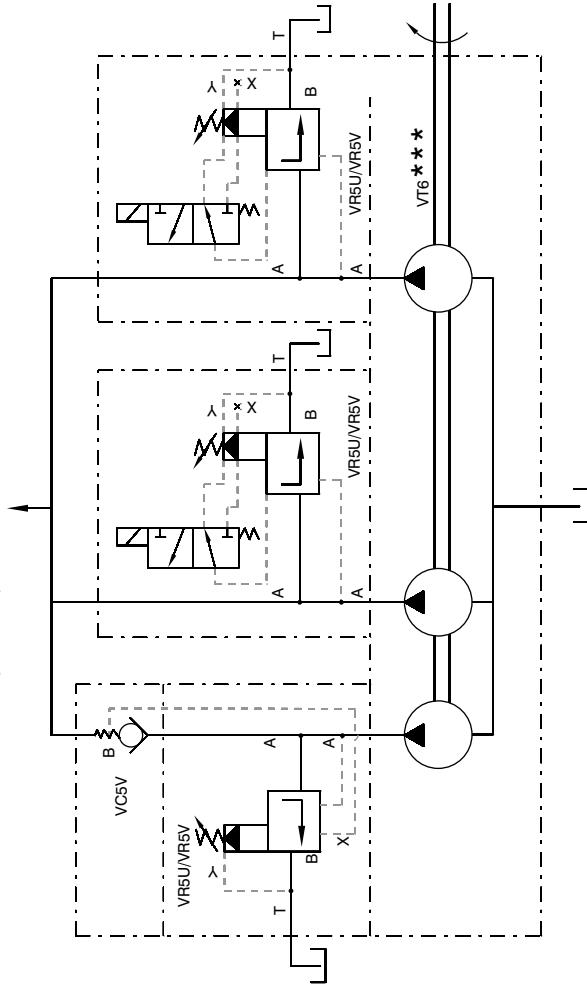
**Relief/Unloader valve (NVC/NUD) - P1
Unloader/Relief with check valve (NUD/NVC) - P2
Unloader/Relief valve (NUD/NVC) - P3**



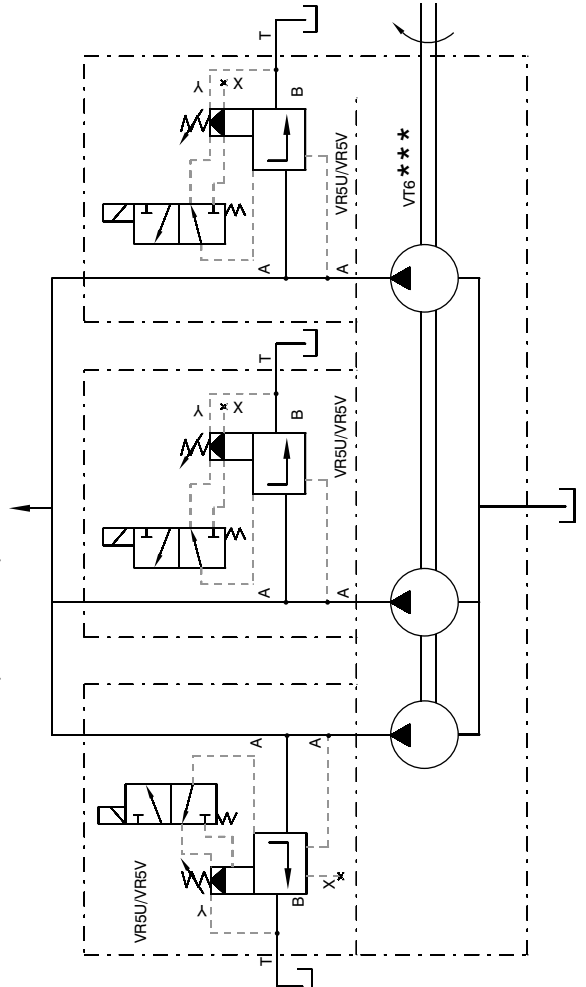
**Relief/Unloader valve (NV/NU) - P1
Unloader/Relief with check valve (NUD/NVC) - P2
Unloader/Relief valve (NUD/NVC) - P3**



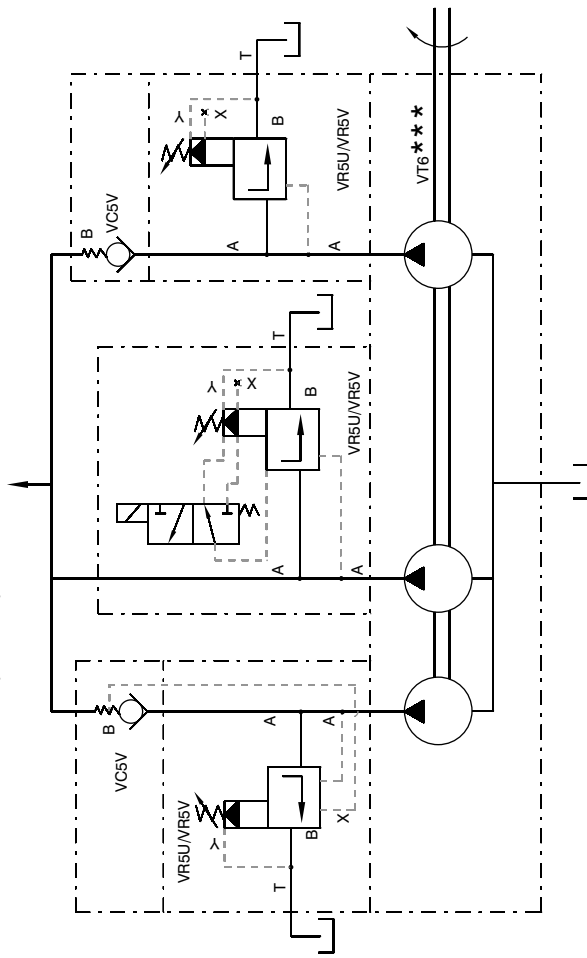
Relief/Unloader with vent valve (VO-VB/UO-UB) - P1 & Relief/Unloader with vent valve (VO-VB/UO-UB) - P2
Unloader/Relief with Check vane (NUD/NVC) - P3



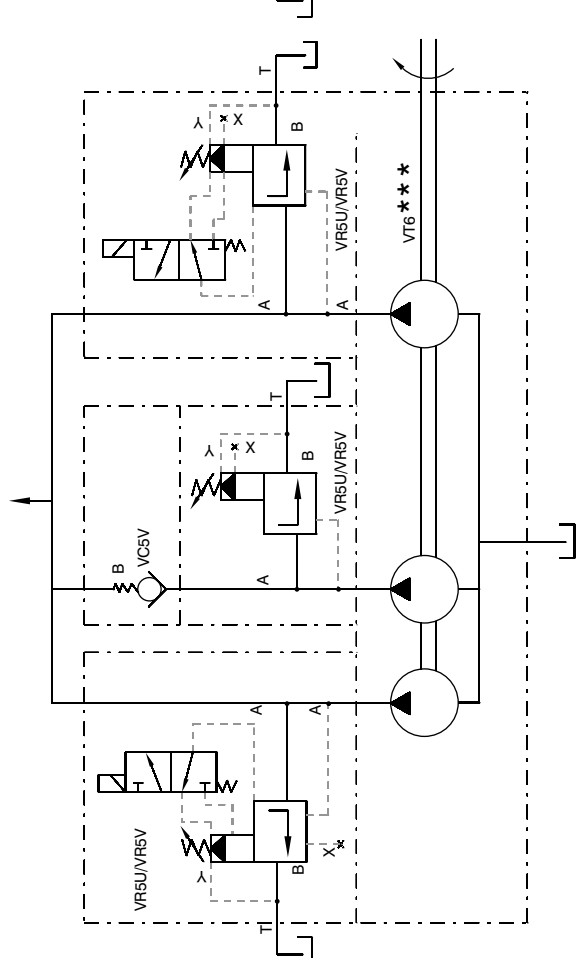
Relief/Unloader with vent valve (VO-VB/UO-UB) - P1 & Relief/Unloader with vent valve (VO-VB/UO-UB) - P2
Relief/Unloader with vent valve (VO-VB/UO-UB) - P3



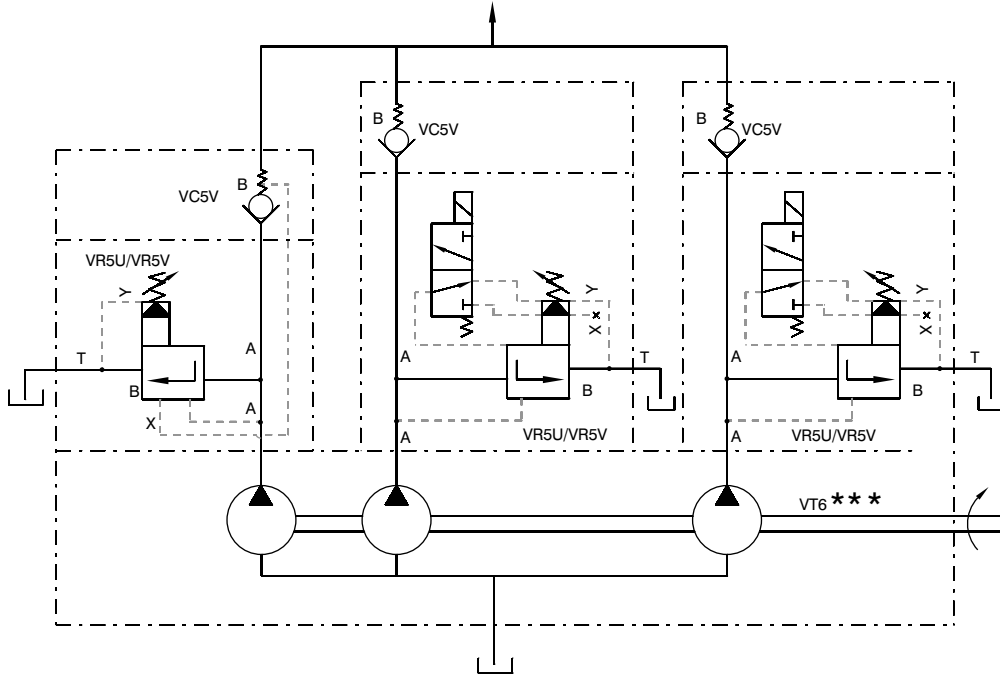
Relief/Unloader valve (NVC/NUD) - P1 & Relief/Unloader with vent valve (VO-VB/UO-UB) - P2
Unloader/Relief with Check vane (NUD/NVC) - P3



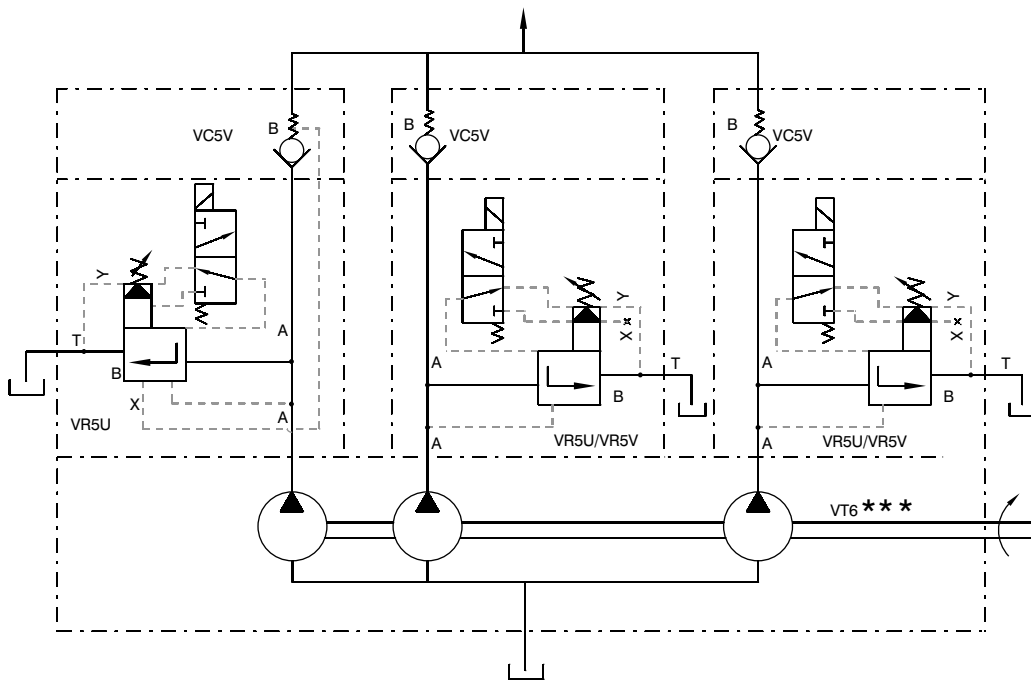
Relief/Unloader with vent valve (VO-VB/UO-UB) - P1 & Unloader/Relief with Check vane (NUD/NVC) - P2
Relief/Unloader with vent valve (VO-VB/UO-UB) - P3

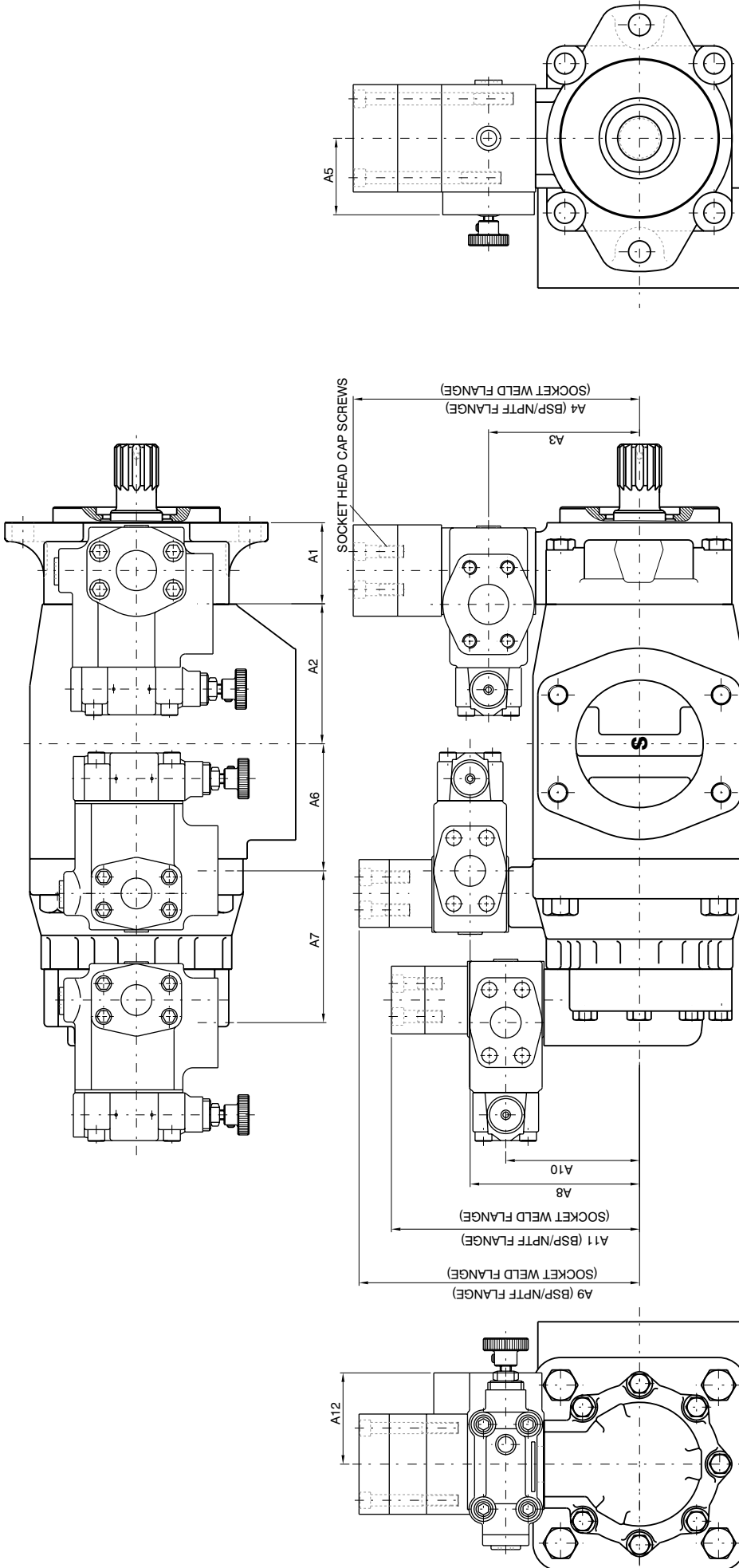


- Unloader/Relief with vent + Check valve (UOD-UBD/VOC-VBC) - P1**
- Unloader/Relief with vent + Check valve (UOD-UBD/VOC-VBC) - P2**
- Unloader/Relief with Check vane (NUD/NVC) - P3**



- Unloader/Relief with vent + Check valve (UOD-UBD/VOC-VBC) - P1**
- Unloader/Relief with vent + Check valve (UOD-UBD/VOC-VBC) - P2**
- Unloader/Relief with vent + Check valve (UOD-UBD/VOC-VBC) - P3**





P3 DIMENSIONS

	VT6CCB		VT6DCB		VT6DCC		VT6DDCS		VT6EDC*	
	in	mm	in	mm	in	mm	in	mm	in	mm
A7	3.93	107.1	4.22	112.0	3.85	102.4	4.03	133.6	3.85	133.6
A10	3.93	99.8	3.93	99.8	4.12	104.7	4.12	104.7	4.12	104.7
A11	7.45	189.2	7.45	189.2	7.85	199.4	7.85	199.4	7.85	199.4
BSP/NPTF	189.2	189.2	189.2	189.2	194.1	194.1	194.1	194.1	194.1	194.1
Socket weld	6.86	174.2	6.86	174.2	7.05	179.1	7.05	179.1	7.05	179.1
A12	2.48	63.0	2.48	63.0	2.56	65.0	2.56	65.0	2.48	63.0

P2 DIMENSIONS

	VT6CCB		VT6DCB		VT6DCC		VT6DDCS		VT6EDC*	
	in	mm	in	mm	in	mm	in	mm	in	mm
A6	4.00	117.0	4.61	127.5	5.40	137.3	5.63	143.0	7.00	177.9
A8	4.18	106.2	4.18	106.2	4.12	104.7	5.18	131.6	5.49	139.1
A9	7.70	195.6	7.85	199.4	8.91	226.3	9.87	250.6	9.88	251.1
BSP/NPTF	189.2	189.2	189.4	189.4	216.3	216.3	235.7	235.7	236.1	236.1
Socket weld	2.48	63.0	2.56	65.0	2.56	65.0	2.40	61.0	2.40	61.0
A12	63.0	63.0	65.0	65.0	65.0	65.0	61.0	61.0	61.0	61.0

P1 DIMENSIONS

	VT6CCB		VT6DCB		VT6DCC		VT6DDCS		VT6EDC*	
	in	mm	in	mm	in	mm	in	mm	in	mm
A1	2.20	56.1	2.66	67.6	2.66	67.6	2.66	67.6	3.22	81.9
A2	3.29	83.6	3.34	84.8	4.27	108.5	4.68	119.0	3.71	94.3
A3	4.18	106.2	4.73	120.1	4.73	120.1	4.73	120.1	7.07	179.7
A4	7.91	200.9	9.12	231.6	9.12	231.6	9.12	231.6	11.6	294.2
BSP/NPTF	200.9	200.9	231.6	231.6	231.6	231.6	231.6	231.6	294.2	294.2
Socket weld	190.9	190.9	216.6	216.6	216.6	216.6	216.6	216.6	281.2	281.2
A5	2.56	65.0	2.40	61.0	2.40	61.0	2.40	61.0	3.64	92.5

Series VT6CBB, VT6CCB, VT6DCB, VT6DCC, VT6DDCS, VT6EDC, VT7DDB, VT7EDB

Cam ring (Vol. displacement)
Refer general & operating characteristics table of vane pumps for options of cam rings of each series

Type of Shaft

VT6CBB/VT6CCB	VT6DCB	VT6DCC
1 - Keyed (no SAE)	1 - Keyed (no SAE)	1 - Keyed (no SAE)
2 - Keyed (SAE BB)	2 - Keyed (SAE CC)	2 - Keyed (SAE CC)
3 - Splined (SAE BB)	3 - Splined (SAE C)	3 - Splined (SAE C)
5 - Splined (SAE B)	E - Splined (SAE C)	4 - Splined (SAE CC)
E - Splined		

VT6DDCS	VT6EDC
1 - Keyed (SAE C)	1 - Keyed (G45N-ISO 3019-2)
2 - Keyed (SAE CC)	
3 - Splined (SAE C)	
4 - Splined (SAE CC)	
5 - Keyed (non SAE)	

Modifications

Mounting w/connection variables for VT6CBB, VT6CCB, VT6DCB, VT6DCC, VT6DDCS, VT6EDC

Seal class
1 = S1 (for mineral oil)
4 = S4 (for fire resistant fluids)
5 = S5 (for mineral oil and fire resistant fluids)

Design letter

Porting combination

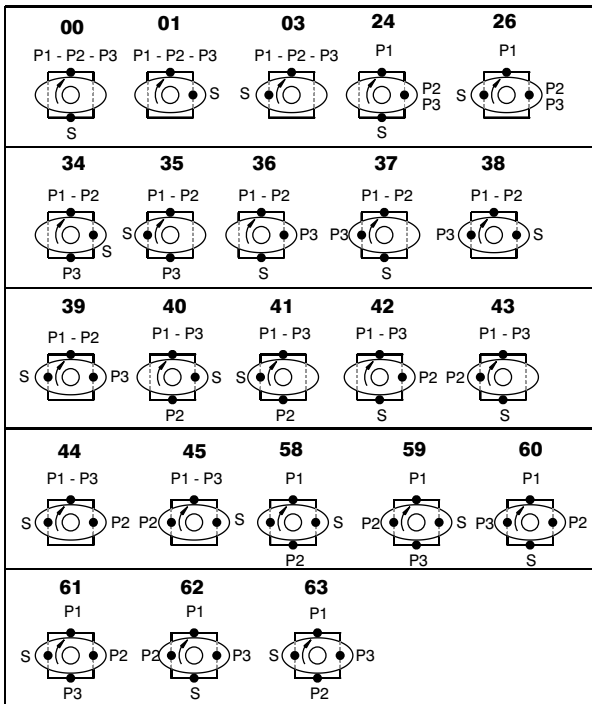
Direction of rotation view on shaft end
R - Clockwise
L - Counter - clockwise

Mounting connection W/variables

VT6CBB				VT6CCB/VT6DCB			VT6DCC/VT6DDCS				VT6EDC	
CODE		S = 2 1/2" SAE 4-Bolt Pad.		UNC		METRIC	UNC		METRIC			
UNC	METRIC	P1	P2	P3	UNC	METRIC	P3	P3	00	01	M0	M1
11	W1	1" SAE 4 bolt Pad.	3/4" SAE 4 bolt Pad.	3/4" SAE 4 bolt Pad.	11	W1	3/4" SAE 4 bolt Pad.	P3	1"	3/4"	1"	3/4"

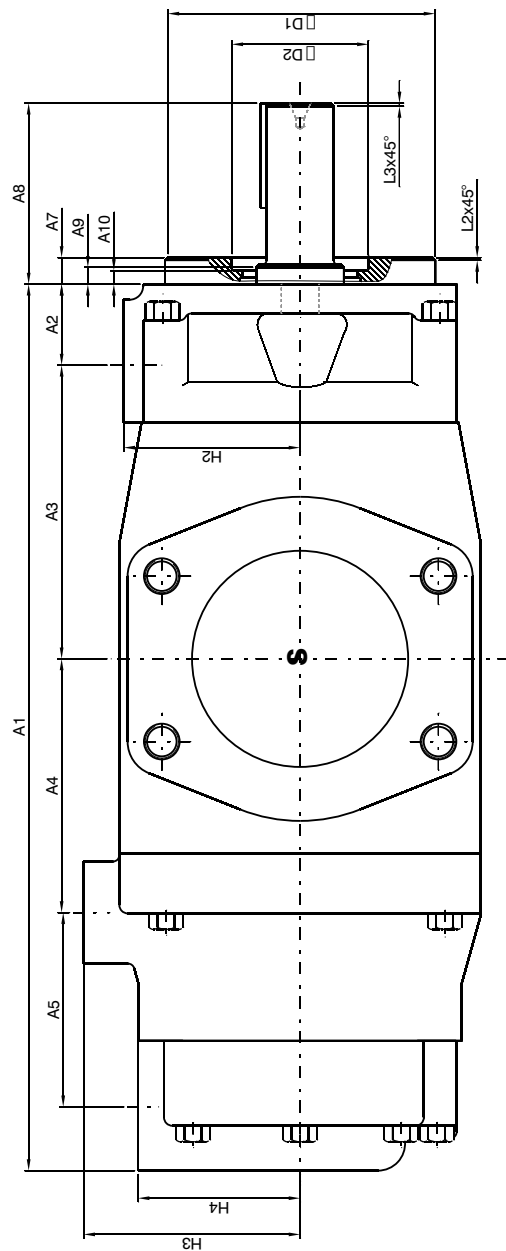
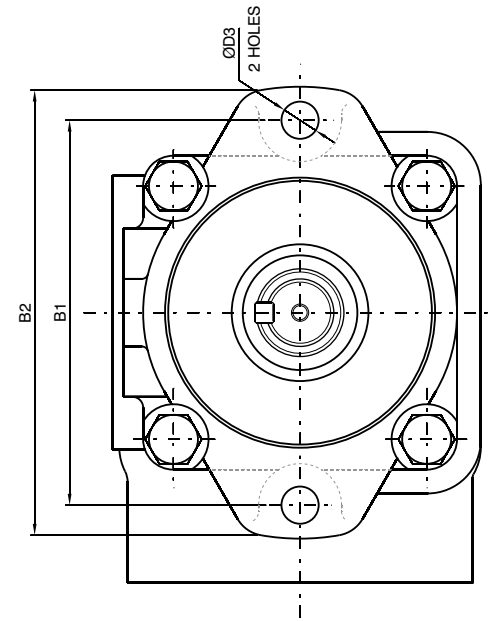
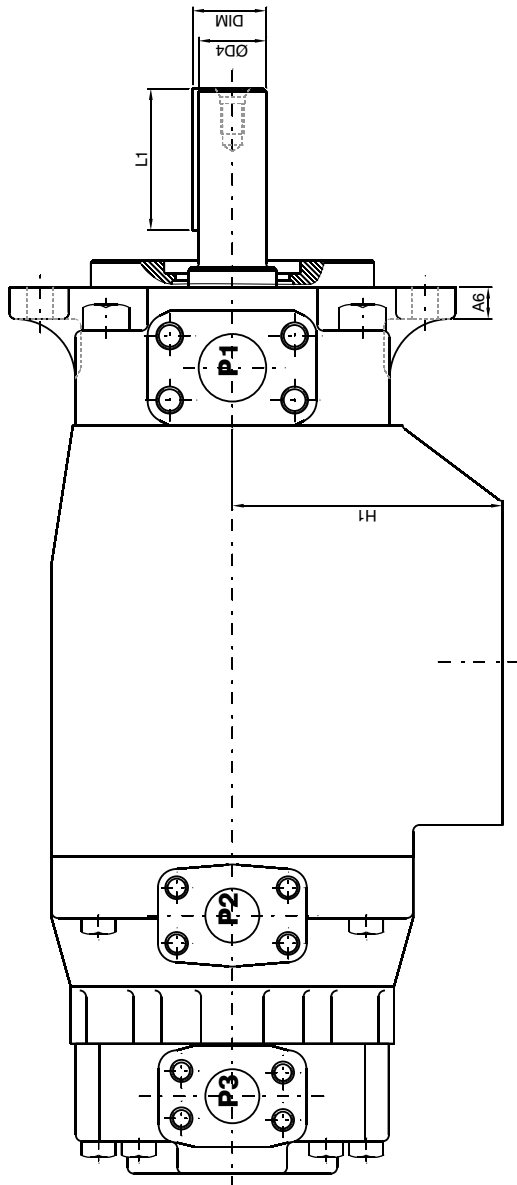
0 = P3 = 1" SAE
1 = P3 = 3/4" SAE

Porting combination



Shaft torque limits in³/rev x psi (ml/rev x bar) Vp x p max.

Shaft	SERIES			
	VT6CBB, VT6CCB	VT6DCC	VT6DDCS	VT6EDC
1	12666 (14300)	38299 (43240)	38299 (43240)	101506 (114715)
2	18972 (21420)	58901 (66500)	63979 (72306)	
3	28937 (32670)	54027 (61200)	54207 (61200)	
4	28937 (32670)	58901 (66500)	49197 (55600)	
5.E	18246 (20600)			



Installation Dimensions

		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	D1	D2	D3	L2	H1	H2	H3	H4
VT6CBB	In	13.67	1.50	4.00	3.47	3.68	0.50	0.38	See shaft table	0.31	0.25	5.75	6.87	4.000/3.998	2.02	0.56	0.05	3.31	3.00	3.00	2.75
	mm	347.2	38.1	101.6	88.2	93.5	12.7	9.7		7.9	6.35	146.0	174.5	101.60/101.55	51.3	14.3	1.30	84.1	76.2	76.2	69.8
VT6CCB	In	14.31	1.50	4.05	3.90	3.87	0.50	0.38	See shaft table	0.31	0.25	5.75	6.87	4.000/3.998	2.02	0.56	0.05	3.31	3.00	2.94	2.75
	mm	363.4	38.1	102.9	99.0	98.4	12.7	9.7		7.9	6.35	146.0	174.5	101.60/101.55	51.3	14.3	1.30	84.1	76.2	74.7	69.8
VT6DCB	In	15.14	1.50	4.50	4.31	3.85	0.62	0.50	See shaft table	0.31	0.25	7.13	8.37	5.000/4.998	2.53	0.69	0.05	3.50	3.25	2.94	2.75
	mm	384.56	38.1	114.3	109.5	97.8	15.7	12.7		7.9	6.35	181.1	212.6	127.00/126.95	64.3	17.5	1.30	88.9	82.6	74.7	69.8
VT6DCC	In	15.90	1.50	5.43	4.70	3.32	0.62	0.50	See shaft table	0.31	0.25	7.125	8.365	5.000/4.998	2.53	0.69	0.05	5.00	3.25	4.00	2.94
	mm	404.0	38.1	138.0	119.3	84.4	15.7	12.7		7.9	6.35	181.0	212.5	127.00/126.95	64.3	17.5	1.30	127.0	82.6	101.6	74.7
VT6DDCS	In	17.91	1.50	5.84	4.92	4.72	0.74	0.50	See shaft table	0.31	0.25	7.125	8.386	5.000/4.998	2.53	0.69	0.05	4.53	3.25	4.00	2.94
	mm	455.0	38.1	148.5	125.0	120.0	19.0	12.7		7.9	6.35	181.0	213.0	127.00/126.95	64.3	17.5	1.30	115.0	82.6	101.6	74.7
VT6EDC	In	18.425	1.69	5.248	5.842	4.725	0.87	0.35	See shaft table	0.39	0.25	8.77	10.75	9.842/9.841	3.15	0.87	0.08	4.53	5.50	4.00	2.94
	mm	468.0	42.9	133.3	148.4	120.0	22.0	9.0		10.0	6.35	222.74	273.0	249.98/249.94	80.0	22.0	2.0	115.0	139.7	101.6	74.7

Keyed shafts						
Series	Code	A8	L1	W	D4	Dim
		In mm	In mm	In mm	In mm	In mm
VT6CCB	1	2.29	1.25	0.187/0.185	0.875/0.874	0.966
		58.2	31.7	4.76/4.71	22.225/22.200	24.53
VT6CBB	2	2.81	1.50	0.250/0.248	1.000/0.999	1.111
		71.4	38.1	6.35/6.30	25.40/25.37	28.22
VT6DCB	1	3.29	1.94	0.250/0.248	1.250/1.248	1.362
		83.56	49.3	6.35/6.30	31.75/31.70	34.60
VT6DCB	2	2.88	1.50	0.375/0.373	1.500/1.498	1.664
		73.2	38.1	9.52/9.47	38.10/38.05	42.27
VT6DCC	1	3.29	1.94	0.250/0.248	1.250/1.248	1.362
		83.6	49.3	6.35/6.30	31.75/31.70	34.60
VT6DCC	2	3.53	2.50	0.375/0.373	1.500/1.498	1.664
		89.7	63.5	9.52/9.47	38.10/38.05	42.27

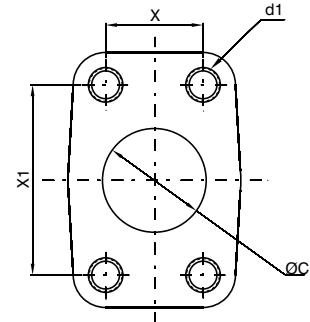
Keyed shafts						
Series	Code	A8	L1	W	D4	Dim
		In mm	In mm	In mm	In mm	In mm
VT6DDCS	1	3.30	1.94	0.312/0.310	1.250/1.248	1.389
		84.0	49.3	7.94/7.89	31.75/31.70	35.27
	2	3.58	2.00	0.375/0.373	1.500/1.498	1.668
VT6DDCS	5	91.0	50.8	9.52/9.47	38.10/38.05	42.36
		3.31	2.36	0.312/0.310	1.374/1.372	1.513
VT6EDC	1	84.0	60.0	7.94/7.89	34.90/34.85	38.43
		3.62	2.48	0.551/0.550	1.771/1.770	1.91
		91.9	63.0	14.00/13.95	45.00/44.97	48.5

Spline shafts				
Series	Code	A8	L1	L3
		In mm	In mm	In mm
VT6CBB	3	1.79	0.965	0.06
		45.5	24.5	1.50
	5	1.60	0.965	0.06
VT6CCB	E	40.7	24.5	1.50
		1.75	1.15	0.06
VT6DCB	3	2.34	1.50	0.09
		59.4	38.1	2.30
	E	2.34	1.50	0.09
		59.4	38.1	2.30

Spline shafts				
Series	Code	A8	L1	L3
		In mm	In mm	In mm
VT6DCC	3	2.17	1.50	0.09
		55.2	38.1	2.30
VT6DCC	4	2.40	1.24	0.09
		61.0	31.5	2.30
VT6DDCS	3	2.20	1.50	0.09
		55.9	38.1	2.30
VT6DDCS	4	1.91	1.24	0.09
		46.0	31.5	2.30

Note: All spline shafts are Flat root side fit except Code-E (Major dia. fit)

Spline Details				
Series	Code	DP	Teeth	Pressure angle
VT6CBB	3	16/32	15	30°
	5	16/32	13	30°
VT6CCB	E	16/32	13	30°
	3	12/24	14	30°
VT6DCB	E	12/24	14	30°
	3	12/24	14	30°
VT6DCC	3	12/24	14	30°
	4	12/24	17	30°
VT6DDCS	4	12/24	17	30°



4-bolt pade per SAE-J518B

Connections		ØC		X		X1		d1
		In	mm	In	mm	In	mm	
Pressure port P1	VT6CBB,VT6CCB	1.00	25.4	1.031	26.2	2.06	52.4	3/8"-16 UNC x 0.75 DEEP (M10x19.0 DEEP)
	VT6DCB,VT6DCC,VT6DDCS	1.25	31.8	1.188	30.2	2.312	58.7	7/16"-14 UNC x 0.88 DEEP (M12x22.4 DEEP)
	VT6EDC	1.50	38.1	1.41	35.7	2.75	69.85	M12 x 1.18 DEEP (M12 x 30.0 DEEP)
Pressure port P2	VT6CBB	0.75	19.0	0.874	22.2	1.874	47.6	3/8"-16 UNC x 0.75 DEEP (M10x19.0 DEEP)
	VT6CCB,VT6DCB,VT6DCC	1.00	25.4	1.031	26.2	2.06	52.4	3/8"-16 UNC x 0.75 DEEP (M10x19.0 DEEP)
	VT6DDCS,VT6EDC	1.25	31.8	1.19	30.2	2.312	58.7	7/16"-14 UNC x 0.94 DEEP (M12x24.0 DEEP)
Pressure port P3	VT6CBB,VT6CCB,VT6DCB	0.75	19.0	0.874	22.2	1.874	47.6	3/8"-16 UNC x 0.75 DEEP (M10x19.0 DEEP)
	VT6DCC,VT6DDCS,VT6EDC	1.00	25.4	1.03	26.2	2.06	52.4	3/8"-16 UNC x 0.75 DEEP (M10x19.0 DEEP)
		0.753	19.0	0.874	22.2	1.874	47.6	3/8"-16 UNC x 0.75 DEEP (M10x19.0 DEEP)
Suction port S	VT6CBB	2.5	63.5	2.00	50.8	3.50	88.9	1/2"-13 UNC x 0.94 DEEP (M12x23.9 DEEP)
	VT6CCB/VT6DCB	3.00	76.2	2.44	62.0	4.19	106.4	5/8"-11 UNC x 1.12 DEEP (M16x28.4 DEEP)
	VT6DCC/VT6DDCS	4.00	101.6	3.062	77.8	5.126	130.2	5/8"-11 UNC x 1.18 DEEP (M16x30.0 DEEP)
	VT6EDC	4.00	101.6	3.06	77.8	5.125	130.2	M16x1.18 DEEP (M16x30.0 DEEP)

SPECIFICATIONS

General

Type	:	Pilot operated Relief /Unloading/Sequence Valve
Design	:	Poppet type
Mounting	:	Flanged According to SAE - 3000 psi (210 bar) e.g. Directly on a pump VR5V12 also 6000 psi (420 bar)
Mounting position	:	Optional
Port sizes (nominal)	:	3/4", 1", 1¼", 1½" (only for VR5V and VR5U)
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) For VR5V12 - 6000 psi (420 bar)
Maximum operating pressure	:	
Port A (inlet)		5000 psi (350 bar), For VR5V12 - 6000 psi (420 bar)
Port B (outlet)		For VR5V and VR5U - 450 psi (30 bar)
Port X (pilot)		5000 psi (350 bar), For VR5V12 - 6000 psi (420 bar)
Port Y, Y1 (pilot drain)		450 psi (30 bar)
Maximum flow gpm (lpm)	:	VR5 *(3/4") VR5 *(1") VR5 *(1¼") VR5 *(1½") 24 (90) 80 (300) 159 (600) 159 (600)
Nominal flow gpm (lpm)	:	depends on pump delivery
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 SUS)
Optimum operating viscosity	:	30 cST (180 SUS)
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	:	Hand wheel
Rotation	:	3.75 rev.
Operating torque	:	0.72 Nm.

Electricals (Vent valve VVV01)

Nominal voltage	:	Solenoid
Permissible Voltage fluctuation	:	Refer to Oredering Code
Max. coil temperature	:	+5....-10
Type of current	:	+155° C (311° F)
Input power	:	Alternating Current (AC) / Direct Current (DC)
Holding	:	31 W
Inrush	:	78 VA
Relative operating period	:	264 VA
Type of protection	:	100
	:	1 P 65

ORDERING CODE

VR5* 08 - 5 3 5 - 1 4 - 09 - W07 - A 1 ***

Series

- VR5V** - Pressure Relief Valve
- VR5U** - Pressure Unloading Valve

Size

- 06 - 3/4"
- 08 - 1"
- 10 - 1 1/4"
- 12 - 1 1/2"

Max. pressure of Valve Body

- 3 - 3000 psi (210 bar) - SAE 61 flange
(VR5V12/VR5U12)
- 4 - 4000 psi (280 bar) - SAE 61 flange
(VR5 *10)
- 5 - 5000 psi (350 bar) - SAE 61 flange
(VR5 *06/08)
- 6 - 6000 psi (420 bar) - SAE 62 flange
(VR5V12 only)

Body

- Ports X1, Y1, ¹⁾M
- 1 - 1/4" NPTF
 - 3 - SAE - 4 (7/16"-20 UNF)
 - 9 - G 1/4"

¹⁾ Port Y1 is only available at external drain from the pilot head

Pressure setting range

- 1 - 100 - 1500 psi (7 - 105 bar)
 - 3 - 100 - 3000 psi (7 - 210 bar)
 - 5 - 100 - 5000 psi (7 - 350 bar)
 - 6 - 100 - 6000 psi (7 - 420 bar) (VR5V12 only)
- VR5U:Pressure Differential 20
VR5U:Pressure Differential 15

Type of Control

- 1 - Hand knob (32 mm dia)
- 2 - Hand knob (50 mm dia) (not for version with vent valve VV01)
- 3 - Acron nut with lead seal

Modifications

Seal Class

- 1 - Buna N (standard)
- 5 - Viton

Design letter

Solenoid Voltage

- (Omit for vent version)
- W01 - 115 V/ 60 Hz AC GOR - 12V DC
 - W02 - 230 V/ 60 Hz AC GOQ - 24V DC
 - W06 - 115 V/ 50 Hz AC GOH - 48V DC
 - W07 - 230 V/ 50 Hz AC

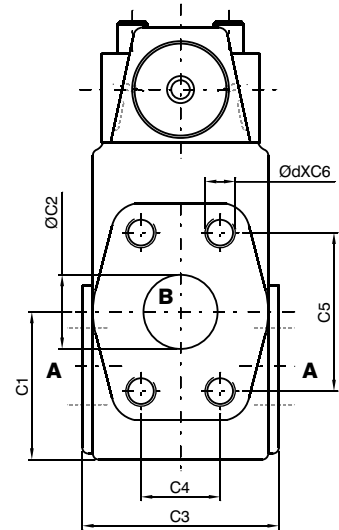
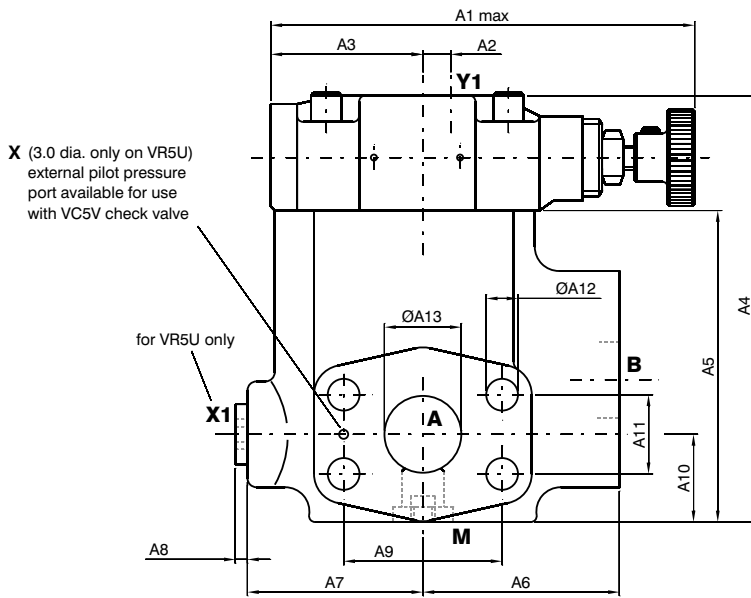
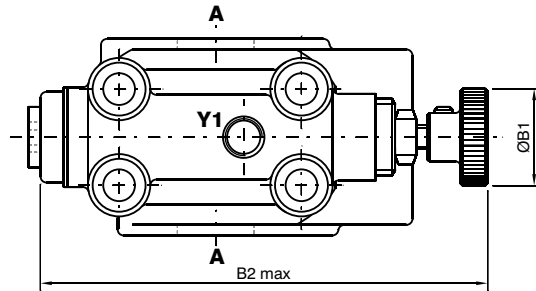
Electrical Vent

- (3 way VENT VALVE VVV01)
Omit for non vent version
- 09 - With manual override (Solenoid de-energized : open to tank, Solenoid Energized : vent line blocked)
 - 10 - Without manual override (Solenoid de-energized : open to tank, Solenoid Energized : vent line blocked)
 - 11 - With manual override (Solenoid de-energized : vent line blocked, Solenoid Energized : open to tank)
 - 12 - Without manual override (Solenoid de-energized : vent line blocked, Solenoid Energized : open to tank)

Pilot connection

- 2 - Internal PD - Internal PP (VR5V)
- 4 - External PD - External PP² (VR5U)
- 5 - Internal PD - External PP² (VR5U)
- 6 - External PD - Internal PP (VR5V)

²⁾ External pilot pressure connection on flange face



Installation Dimensions

	R5V*(3/4")		R5V*(1")		R5V*(1 1/4")		R5V*(1 1/2")	
	in	mm	in	mm	in	mm	in	mm
A1	5.55	141.0	5.55	141.0	5.55	141.0	5.55	141.0
A2	0.41	10.5	0.2	5.0	0.12	3.0	0.917	23.3
A3	1.93	49.0	2.146	54.5	2.224	56.5	1.417	36.0
A4	4.69	119.2	5.53	140.5	5.87	149.1	6.99	177.6
A5	3.213	81.6	4.055	103.0	4.39	111.5	5.512	140.0
A6	2.48	63.0	2.56	65.0	2.402	61.0	3.642	92.5
A7	2.205	56.0	2.283	58.0	2.441	62.0	2.173	55.2
A8	0.16	4.0	0.16	4.0	0.16	4.0	0.164	4.2
A9	1.874	47.6	2.063	52.4	2.311	58.7	2.75	69.8
A10	1.102	28.0	1.14	29.0	1.35	34.3	1.34	34.0
A11	0.874	22.2	1.032	26.2	1.19	30.2	1.41	35.7
A12	0.41	10.5	0.41	10.5	0.472	12.0	0.531	13.5
A13	0.75	19.0	0.984	25.0	1.26	32.0	1.496	38.0

	R5V*(3/4")		R5V*(1")		R5V*(1 1/4")		R5V*(1 1/2")	
	in	mm	in	mm	in	mm	in	mm
B1	Ø1.26	Ø32.0	Ø1.26	Ø32.0	Ø1.26	Ø32.0	Ø1.26	Ø32.0
B2	5.827	148.0	5.7	145.0	5.77	146.6	6.58	167.2

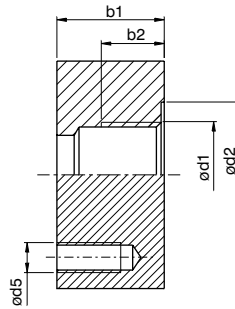
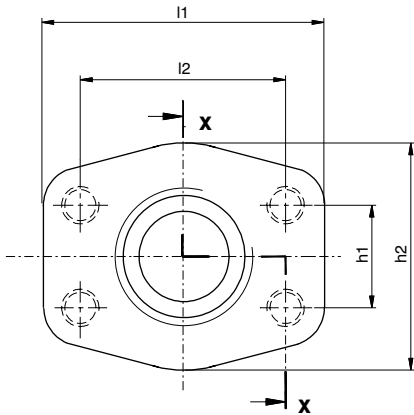
	R5V*(3/4")		R5V*(1")		R5V*(1 1/4")		R5V*(1 1/2")	
	in	mm	in	mm	in	mm	in	mm
C1	1.64	41.6	1.85	47.0	2.51	64.0	2.874	73.0
C2	0.75	19.0	0.98	25.0	1.26	32.0	1.496	38.0
C3	2.362	60.0	2.362	60.0	2.953	75.0	3.15	80.0
C4	0.874	22.2	1.032	26.2	1.19	30.2	1.41	35.7
C5	1.874	47.6	2.063	52.4	2.31	58.4	2.75	69.8
Ød	3/8"UNCx0.79		3/8"UNCx0.91		7/16"UNCx0.86		1/12-13"UNCx1.06	
xC6	(M10x20 DP)		(M10x23 DP)		(M12x23 DP)		(M12x27 DP)	

Ports	Function	Port Sizes			
		VR5*06	VR5*08	VR5*10	VR5*12
A (2x)	Pressure	3/4" (SAE -61)	1" (SAE -61)	1 1/4" (SAE -61)	1 1/2" (SAE -61)
B	Tank	3/4" (SAE -61)	1" (SAE -61)	1 1/4" (SAE -61)	1 1/2" (SAE -61)
X1	Ext. Pilot port ¹⁾	1/4" NPTF OR G1/4" OR SAE-4			
Y1	Ext. Drain				
M	Pressure gauge				

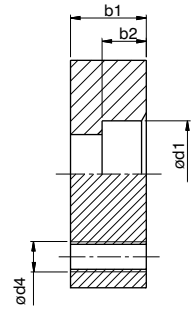
* 1). CLOSED WHEN SUPPLIED

SAE - Flanges

Inlet flange (only for pipe mounting)

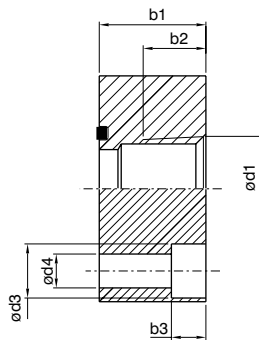
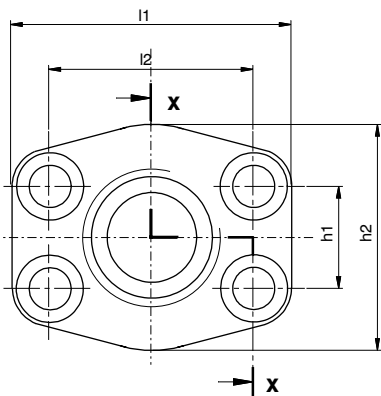


B.S.P.P Flange

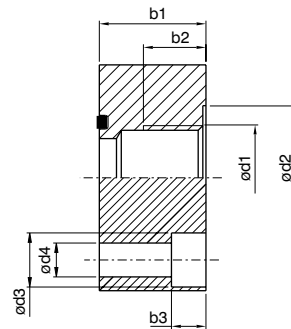


Socket weld

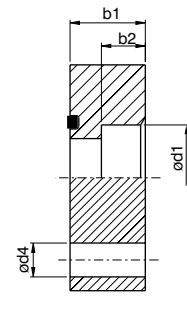
Outlet and tank port flange



N.P.T.F flange



B.S.P.P flange



Socket weld

Port sizes d1	Inlet flange (without screws) only for pipe mounting	Outlet flange (without screws)	Tank port flange (with screws)											
	Order no.	Order no.	Order no.	l1	l2	b1	b2	b3	h1	h2	od2	od3	od4	od5
3/4" B.S.P.P	VS16-86520	VS16-86529	VS14-66933	67.0	47.6	34.0	15.9	12.0	22.0	52.0	40.0	16.5	10.5	3/8" UNC
3/4" N.P.T.F.	-	VS16-86530	VS14-66925			19.0	12.0	-			-			
3/4" Socket weld	VS16-86519	VS16-86528	VS14-66941	72.0	52.4	34.0	20.0	12.0	26.2	58.0	46.0	16.5	12.5	7/16" UNC
1" B.S.P.P	VS16-86523	VS16-86532	VS14-66934			19.0	14.0				-			
1" N.P.T.F.	-	VS16-86533	VS14-66926			24.0	14.0	-			-			
1" Socket weld	VS16-86522	VS16-86531	VS14-66942			22.0	15.0	30.2			73.0	54.0		
1 1/4" B.S.P.P	VS16-86526	VS16-86535	VS14-66935	80.0	58.7	39.0	20.6	15.0	30.2	73.0	54.0	17.5	12.5	7/16" UNC
1 1/4" N.P.T.F.	-	VS16-86536	VS14-66927			20.6	14.0				-			
1 1/4" Socket weld	VS16-86525	VS16-86534	VS14-66943			24.0	14.0	-			-			
1 1/2" B.S.P.P	VS26-52364	VS26-52215	VS14-66936	94.0	69.8	39.0	24.0	15.0	35.7	82.0	60.0	20.0	14.5	1/2" UNC
1 1/2" Socket weld	VS26-52366	VS26-52217	VS14-66944			26.0	16.0	-			-			
1 1/2" B.S.P.P ¹⁾	V464-01147	V464-01141	V464-01004	112.0	79.4	50.0	28.0	20.0	36.5	94.0	60.0	25.0	17.5	5/8" UNC
1 1/2" Socket weld ¹⁾	V464-01149	V464-01143	V464-01146			-	-	-			-			

1) SAE 62

ORDERING CODE

VC5V 08 - 3 1 1 - A 1

Series

Size

06 - 3/4" 08 - 1" 10 - 1 1/4" 12 - 1 1/2"

Maximum pressure

3 - 3000 psi (210 bar) (VC5V06/08/10/12 - S.A.E. 61)

6 - 3000 psi (210 bar) (VC5V12 - S.A.E. 62)

Body

- 1 - with face seal,
- 2 - with face seal (for unloader application),
- 3 - without face seal

Seal class

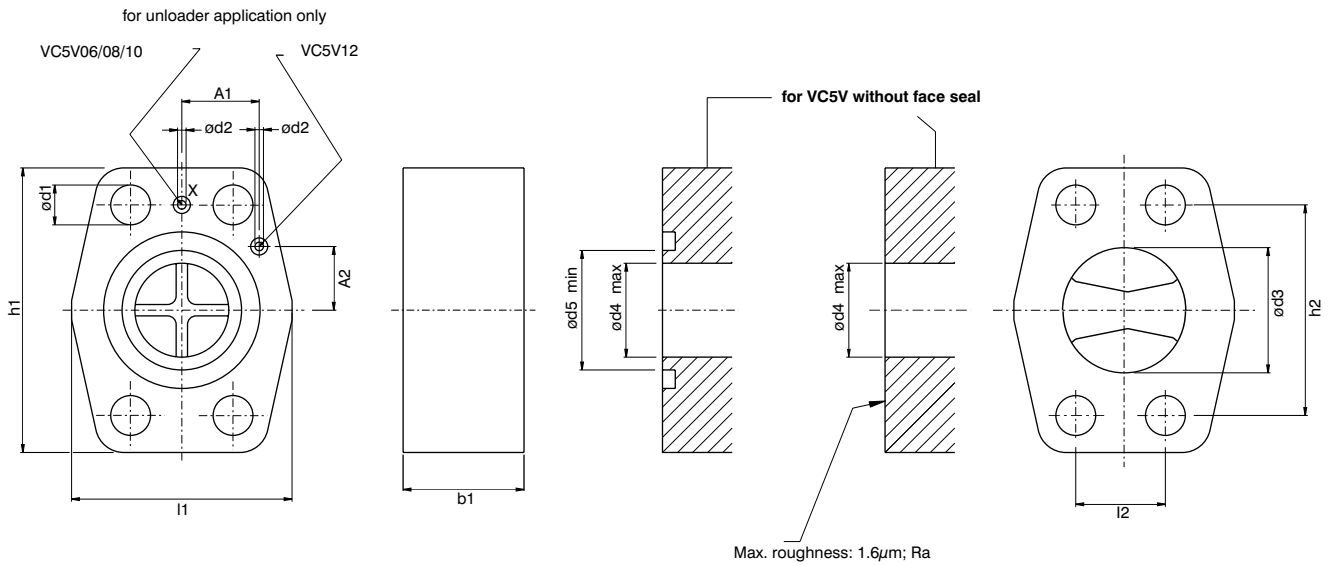
- 1 - Standard
- 5 - Viton
- (for special fluids consult VELJAN)

Design letter

Spring

- 1 - Standard

Installation



Dimensions		
	in	mm
A1	1.071	27.2
A2	0.88	22.4

Dimensions

	Size		l1	l2	h1	h2	b1	ød1	ød2	ød3	ød4 max	ød5 min	Weight		
VC5V06	3/4"	in	2.047	0.874	2.638	1.874	1.0	0.413	0.12	0.906	0.748	0.906	1.1 lbs		
		mm	52.0	22.2	67.0	47.6	25.4	10.5	3.0	23.0	19.0	23.0	0.5 kg		
VC5V08	1"	in	2.283	1.032	2.834	2.063	1.209	0.413	0.12	1.26	0.984	1.181	1.34 lbs		
		mm	58.0	26.2	72.0	52.4	30.7	10.5	3.0	32.0	25.0	30.0	0.6 kg		
VC5V10	1 1/4"	in	2.866	1.189	3.142	2.311	1.378	0.472	0.12	1.378	1.26	1.378	2.2 lbs		
		mm	72.8	30.2	79.8	58.7	35.0	12.0	3.0	35.0	32.0	35.0	1.0 kg		
VC5V12	1 1/2"	S.A.E.61	in		1.401		2.748		0.531						
			mm	2.953		35.7		69.8	1.398	0.12	1.772	1.693	1.713	3.37 lbs	
		S.A.E.62	in	75.0		1.437		3.126		0.669		3.0	45.0	43.0	1.5 kg
			mm			36.5		79.4		17.0					

SPECIFICATIONS

General

Type	:	3/2 - Vent Valve
Mounting position	:	Optional but horizontal recommended
Port sizes (nominal)	:	Identical with VELJAN Pilot Valve series VR4, VR5, VD4S and VCAR
Ambient temperature	:	-20° C... + 60° C (-4° F... + 140° F)
Special working conditions	:	Consult VELJAN

Hydraulics

Pressure control range		
-Port X (pilot)	:	5000 psi (350 bar)
-Port Y (drain)	:	2030 psi (140 bar)
Nominal flow gpm (lpm)	:	1.0 (3.8)
Fluid Temperature Range	:	- 18° C...+ 80° C (0° F... + 176° F)
Optimum operating viscosity	:	30 cSt (180 SSU)
Overlap	:	Positive

Actuation

Electric	:	By Solenoid
Type of current	:	AC or DC
Nominal voltage	:	Refer to Ordering Code
Permissible voltage fluctuation	:	+5%...-10%
Max. coil temperature	:	+155° C (311° F)
Input power	:	31 W
Holding	:	78 VA
Inrush	:	264 VA
Relative operating period	:	100%
Type of protection	:	I P 65

Response time	:	AC	DC
Solenoid energized	:	20 ms	46 ms
Solenoid de-energized	:	18 ms	27 ms
Cycle	:	...7200 /h	...16000 /h

ORDERING CODE

VVV01 - 3 1 1 - W07 - D - 1

Series _____

Type
3 - 3- way model

Spool position
1-Normal position: free flow from Z to Y
switch position: X to Z

2-Normal position: X to Z
Switch position: free flow from Z to Y

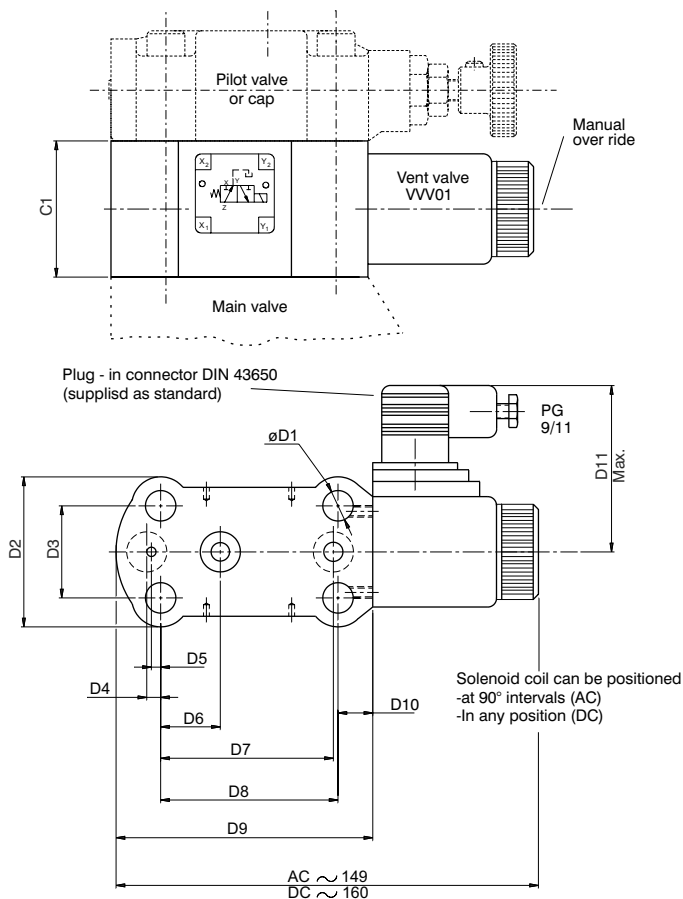
Control
1 - plug - in - type solenoid with manual over-ride
2 - plug - in - type solenoid without manual over-ride
D-Pneumatic } On request
Q -Hydraulic }

Seal Class
1- Buna N (Standard)
5 - Viton

Design letter
D - AC Solenoid
E - DC Solenoid

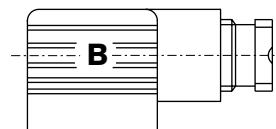
Solenoid Voltage
W01 - 115V/60 Hz AC GOR - 12V DC
W02 - 230V/60 Hz AC GOQ - 24V DC
W06 - 115V/50 Hz AC GOH - 48V DC
W07 - 230V/50 Hz AC

Installation



Weight (VVV01) : 3.73 lbs (1.7 kg)

Note :
For VVV01 with DC solenoid,
plug-in connectors must be
ordered separately.



Versions	
Standard < 250 VPG 11	V167-01008-8
With LED (red) 15 .. 30 V	V167-01101-8
With bridge rectifier 12 .. 250 V	V167-01014-8

Dimensions		
	in	mm
C1	1.85	47.0

Dimensions		
	in	mm
D1	$\phi 0.41$	$\phi 10.5$
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