

Vincke solenoid valves is designed and tested under innovative concepts to satisfy the advanced needs of currents machines: versatility, reduced power absorbed and safety of use.

Solenoid directional valves are used for changing flow direction in hydraulic systems.

Technical characteristics

		Size/Type	
working pressure Mpa	Oil ports P,A,B	6	10
	Oil ports T	35	31.5
		16	16
Max. Flow L/min		80	120
Working fluid		Mineral oil; phosphate-ester	
Fluid Temperature °C		-20...70	
Viscosity mm²/s		2.8..100	
working voltage V	DC	12	24
	AC	110V/50Hz	220V/50Hz
Max. Switch frequency T/h		15000 (DC)	7200 (AC)
insulation grade		IP65	
Weight kg	Single solenoid	1.45 DC 1.4 AC	5.1 DC 4.3 AC
	Double solenoid	1.95 DC 1.9 AC	6.7 DC 5.1 AC

Cleanliness

The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638. It is suggested that the minimum filter rating should be $\beta_{10} \geq 75$.

Ordering code

4VNKSV - 6 - E - OF - DC24 - 4L

4 main ports
Nominal size 6 Cetop 3 or 10 Cetop 5
Type of spool E,J,D,C,HA,E etc.
With spring return = no code
Without spring return = O
Without spring return with detent =OF

Electrical Connection:
4L= DIN connector+led
4X= DIN connector without led
DC 24 or DC12
AC220 AC110 AC24

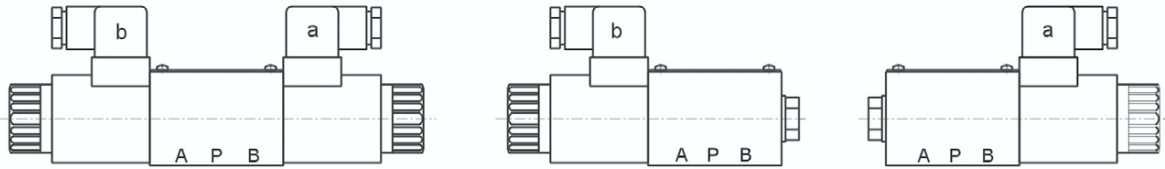
Code symbol



1)Example:

Spool symbol H with spool A, ordering code HA

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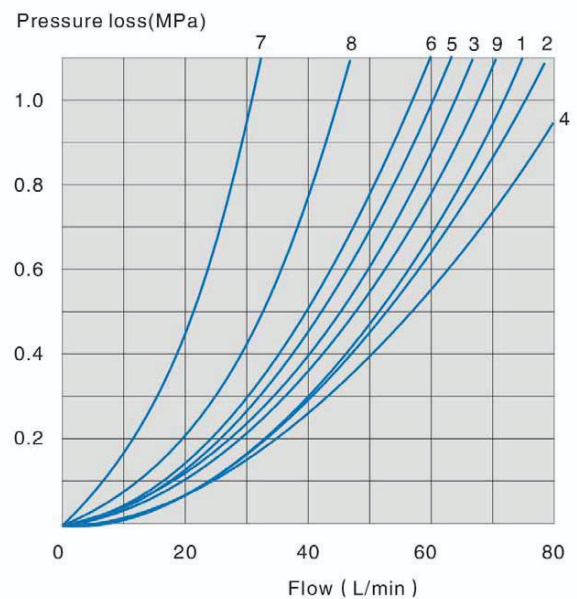


CETOP 3 SIZE 6

SPECIFICATION PERFORMANCE CURVE
Measured at $v=41\text{mm}^2/\text{s}$ and $t=50^\circ\text{C}$

Function Code	Direction			
	P→A	P→B	A→T	B→T
C	1	1	3	1
D	5	5	3	3
E	3	3	1	1
F	1	3	1	1
G	6	6	9	9
H	2	4	2	2
J	1	1	2	1
L	3	3	4	9
M	2	3	3	3
P	3	1	1	1

8. Spool symbol G in the neutral position P→T

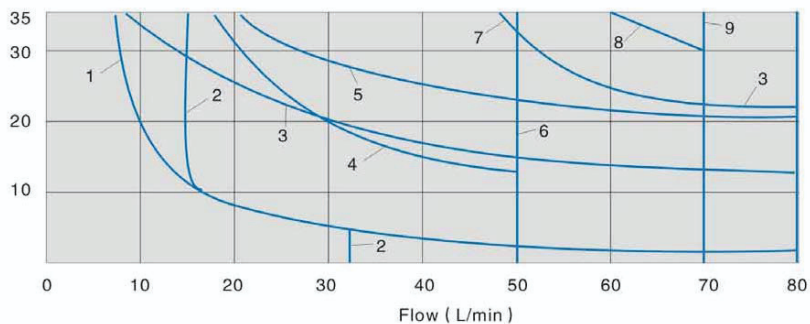


Specification working limits

With regard to the four-way valve, the normal flow data as show is get from the regular use of two directions of the flow. See tables. If only one flow direction is needed, the maximum flow may be very small in the serious condition.

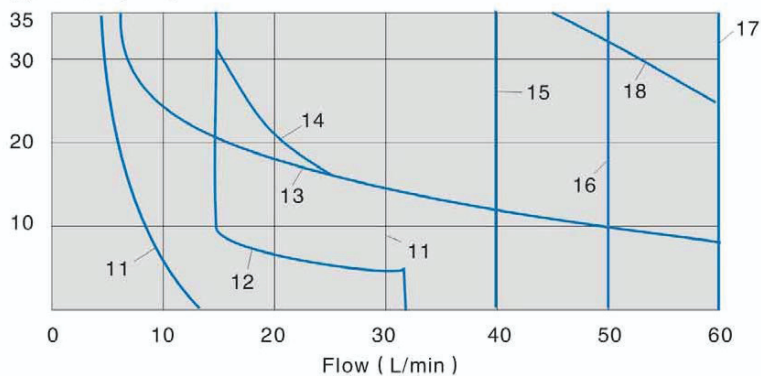
DC 24 12 110		AC 220 110 24, 50HZ	
Curve	Symbol	Curve	Symbol
4	F P	14	F M
5	J	15	G
6	G H	16	H
7	L	17	E H/OF E/OF J M L
8	C D	18	C D
9	M		
10	E H/OF E/OF		

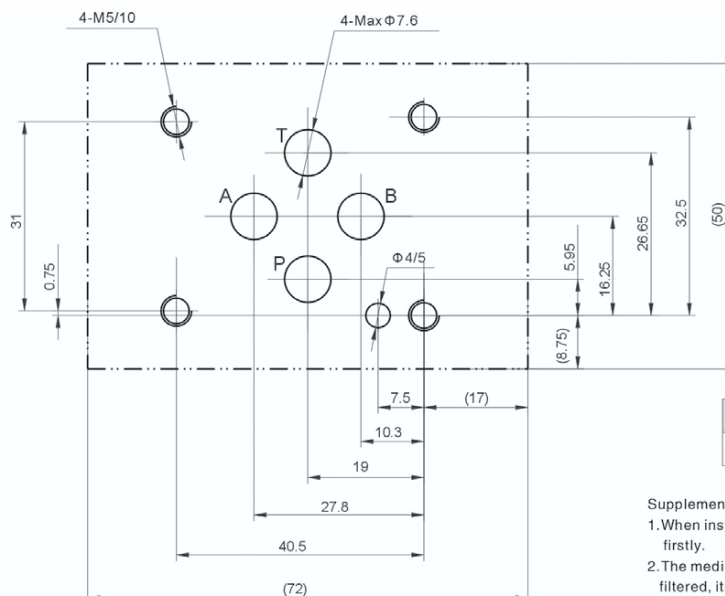
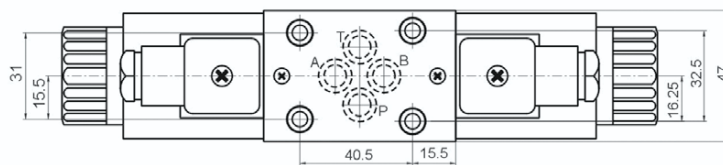
Working pressure(MPa)



- 1) No manual emergency operation
- 2) Oil return from actuator to oil tank

Working pressure(MPa)





Mounting screw	Amount	Tighten torque
M5x45-10.9	4	9Nm

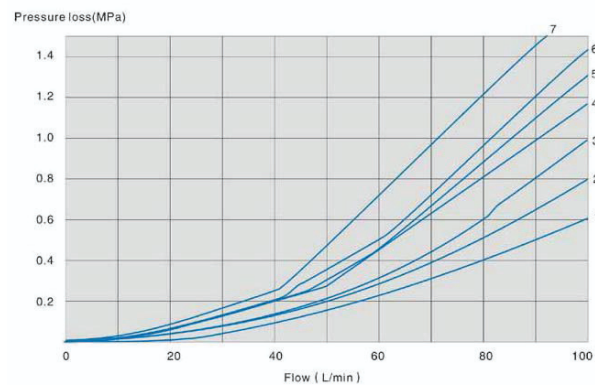
Supplementary explanation

- Supplementary explanation
1. When installing the product, considering horizontal position firstly.
 2. The medium used in the hydraulic system must be filtered, its accuracy at least $20\text{ }\mu\text{m}$.
 3. Screw should be according to the parameters in catalogue.
 4. The surface, connecting with the valve, should be $Ra0.8$ roughness, and $0.01/100\text{mm}$ flatness.

CETOP 5 SIZE 10

SPECIFICATION PERFORMANCE CURVE
Measured at $v=41\text{mm}^2/\text{s}$ and $t=50^\circ\text{C}$

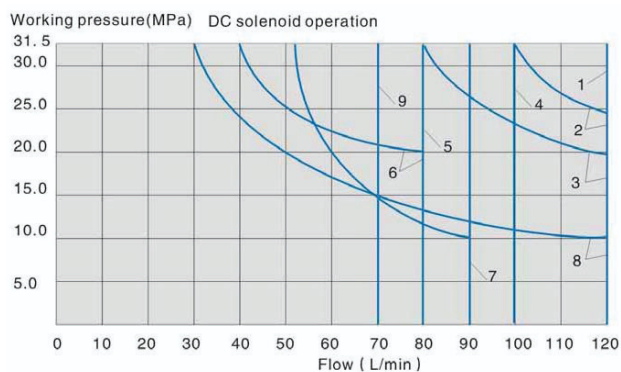
Function Code	Direction			
	P→A	P→B	A→T	B→T
C D	2	2	3	3
E	2	2	4	4
F	2	3	3	5
G	3	3	4	6
H	1	1	4	5
L	1	1	4	5
M	1	1	5	1
P	3	2	5	3



4.Spool symbol G in neutral position P→T

Specification working limits

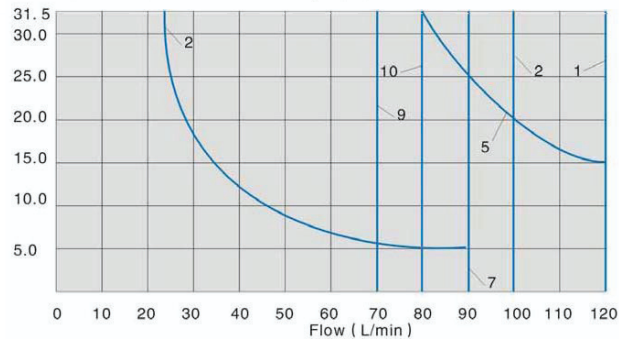
With regard to the four-way valve, the normal flow data as shown is get from the regular use of two directions of the flow (e.g. P to A, and simultaneous return flow from B to T). See tables, if only one flow direction is needed, for example: when a four port valve which is closed up port A or port B, used as a three-way valve, the maximum flow may be very small in the serious condition.



Curve	Symbol
1	C D H/OF E/OF M
2	E
4	L J H
6	G
7	F P

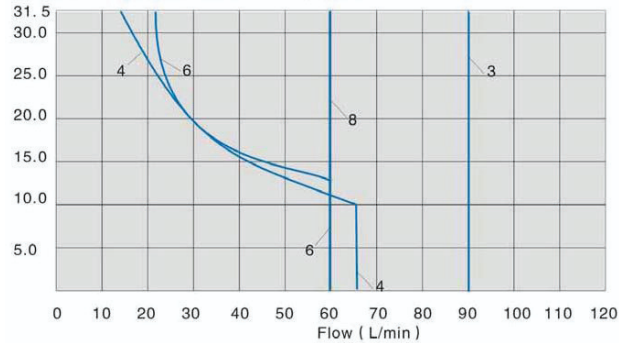
(1) Return circuit (independent of area ratio)

Working pressure(MPa) AC solenoid operation

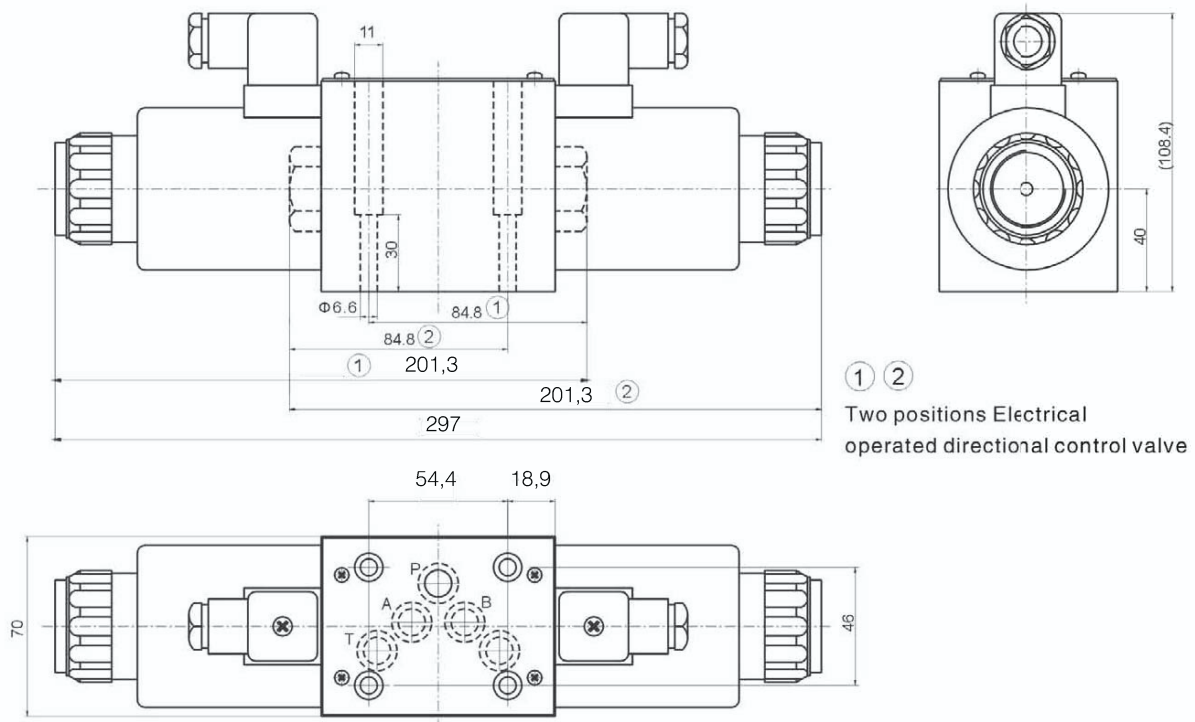


110V 220V	
Curve	Symbol
1	C D E/OF
2	E
3	L M
5	J
6	G
7	F P
8	H

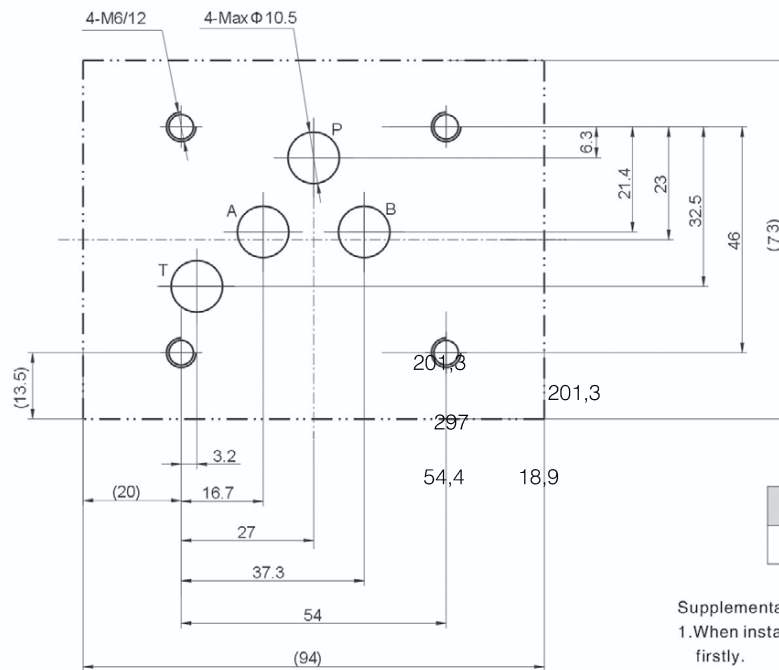
Working pressure(MPa) AC solenoid operation



External dimensions



Size of subplate oil port



Mounting screw	Amount	Tighten torque
M6x40-10.9	4	15Nm

Supplementary explanation

1. When installing the product, considering horizontal position firstly.
2. The medium used in the hydraulic system must be filtered, its accuracy is at least $20 \mu m$.
3. Screw should be according to the parameters in catalogue.
4. The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.