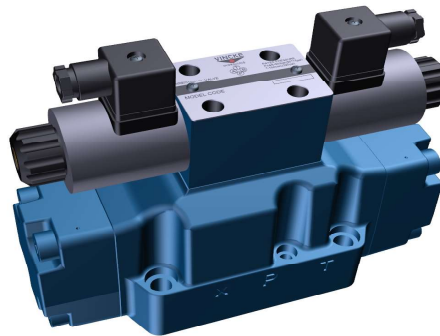




Electro-hydraulic directional control valve is a control valve which can use the pressure of the hydraulic circuit to pull the spool and change the hydraulic oil direction.

Electro-hydraulic directional control valve is the combination of the electrical operated directional control valve and the hydraulic directional control valve. It uses the electrical operated directional control valve to control the hydraulic operated directional control valve, and change the hydraulic oil direction.

Electro-hydraulic directional control valve and hydraulic operated directional control valve are used mostly in hydraulic systems when electrical operated directional control valve can not afford the flow. It may control the movement of the power elements, or control the direction of the flowing oil.

Technical characteristics

Size			16	25	32
Allowed maximum pressure (Mpa)	Port A,B,P		31.5		
	Port T	Extl relief	16		
		Intl relief	16		
	Port Y Extl relief		16 for DC; 10 for AC		
Maximum control pressure (Mpa)			25		
Maximum Flow (L/min)			300	650	1100
Working fluid			Mineral oil		
Fluid temperature (°C)			-20~70		
Wheight (Kg.)	With pilot single solenoid valve		8.8	18	41
	With pilot doble solenoid valve		9.5	18.7	41.7

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

4VNKEH-S - 16 - E - OF - DC24 - N - XY - P4.5

Type: Hydraulic operated D.C.V

S= Solenoid pilot = without solenoid pilot

Nominal Size= 16 Cetop 7 - 25 Cetop 8 - 32 Cetop 10

Type of spool E,J,D,C,HA,E etc.

With spring return = no code

Without spring return = 0

Without spring return with detent =OF

P4.5=0.45MPa P4.5=0.45MPa
No code=Without pilot pressure
P0.45=With pilot pressure
cracking pressure is 0.45MPa

Omit= Intl control Intl drain

XY= Extl control Extl drain

X= Extl control Intl drain

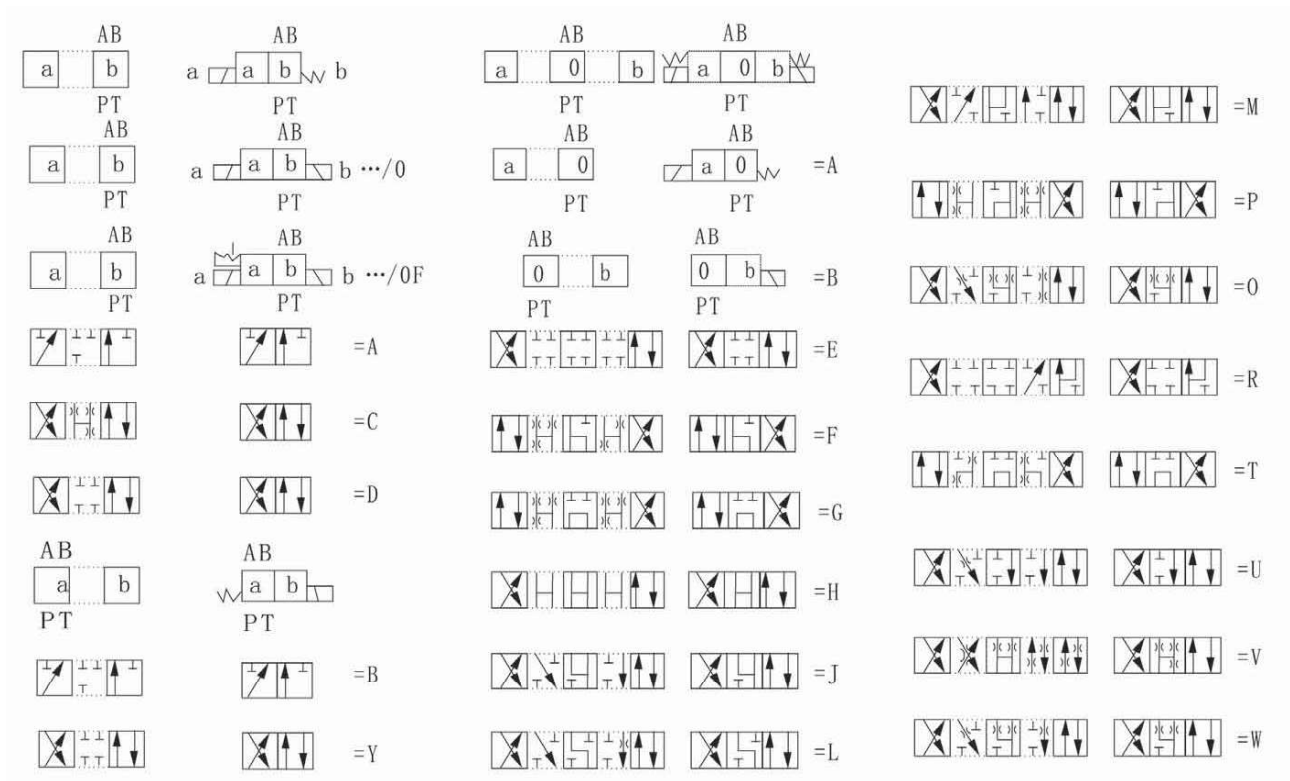
Y= Intl control Extl drain

N = With hand emergency

Omit= without hand

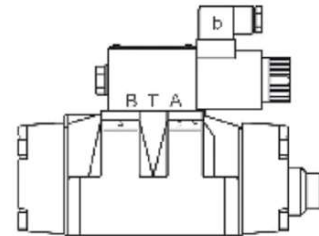
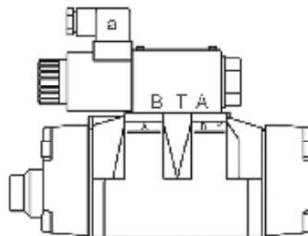
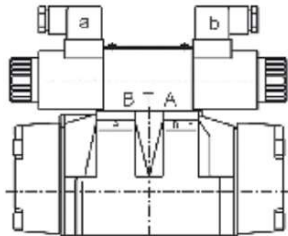
DC 24 or DC12

Code symbol



1) Example:

Spool symbol H with spool A, ordering code HA.

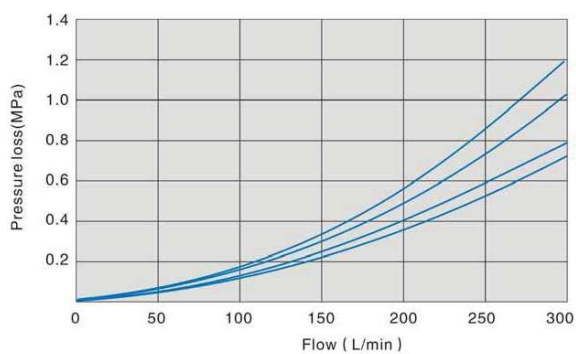


CETOP 7 NG16

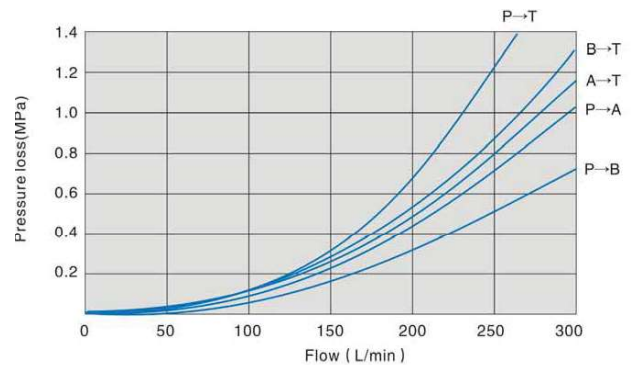
SPECIFICATION PERFORMANCE CURVE
Measured at $v=41\text{mm}^2/\text{s}$ and $t=50^\circ\text{C}$

Pressure loss Mpa

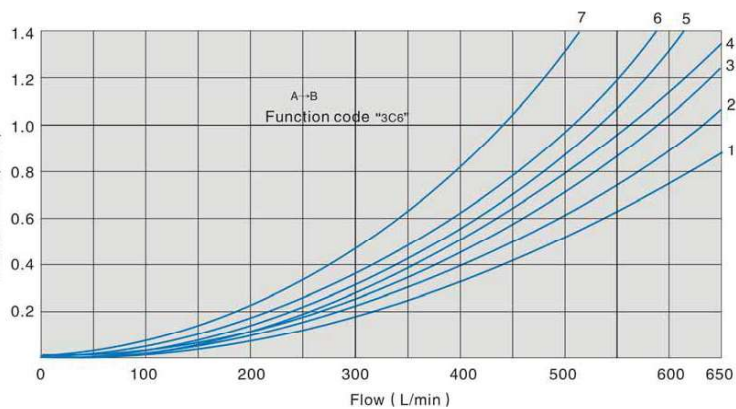
Spool E



Spool G



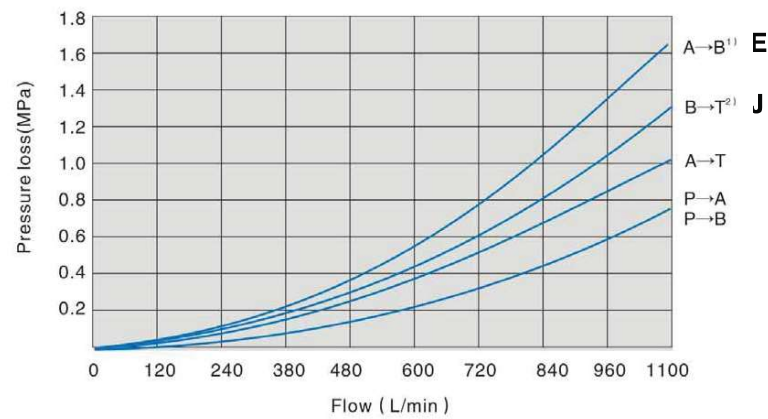
CETOP 8 NG25



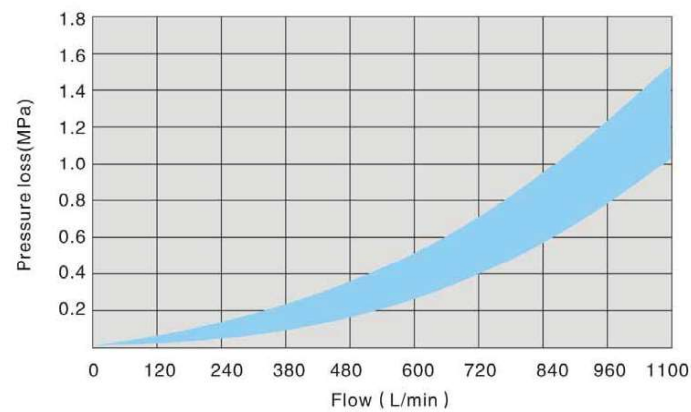
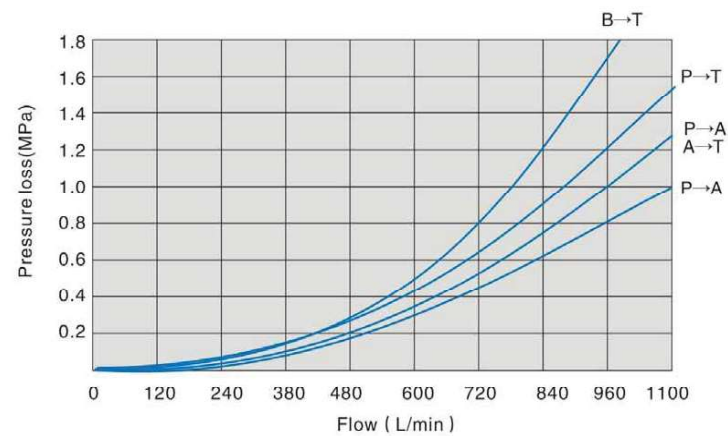
Function Code	Switching position			
Symbol	P→A	P→B	A→T	B→T
E	1	2	4	5
F	1	4	1	1
G	4	2	2	6
H	4	4	1	4
J	1	2	1	3
L	2	3	1	4
M	4	4	3	4
P	4	1	3	4

CETOP 10 NG32

Spool E-J

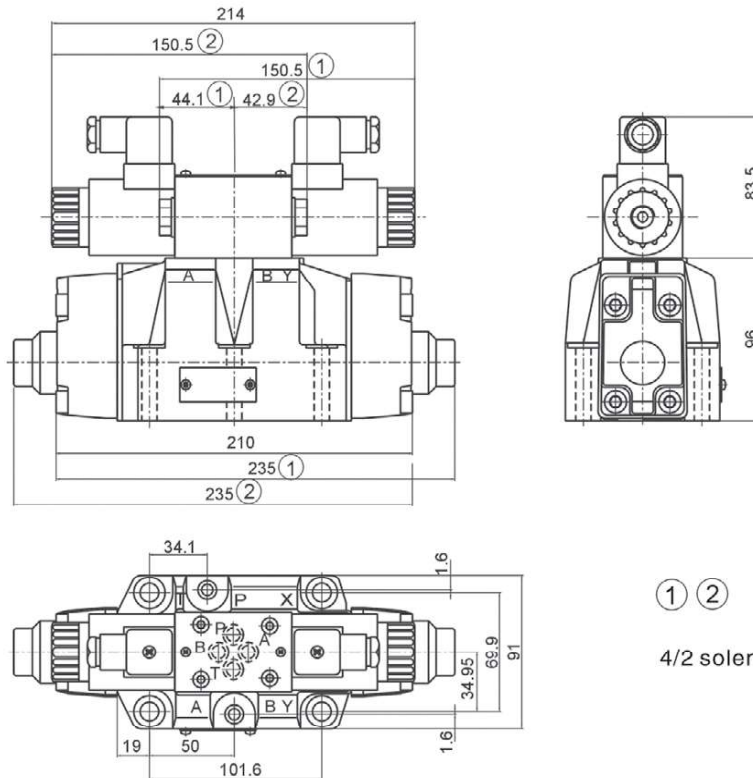


Spool G



CETOP 7 NG16

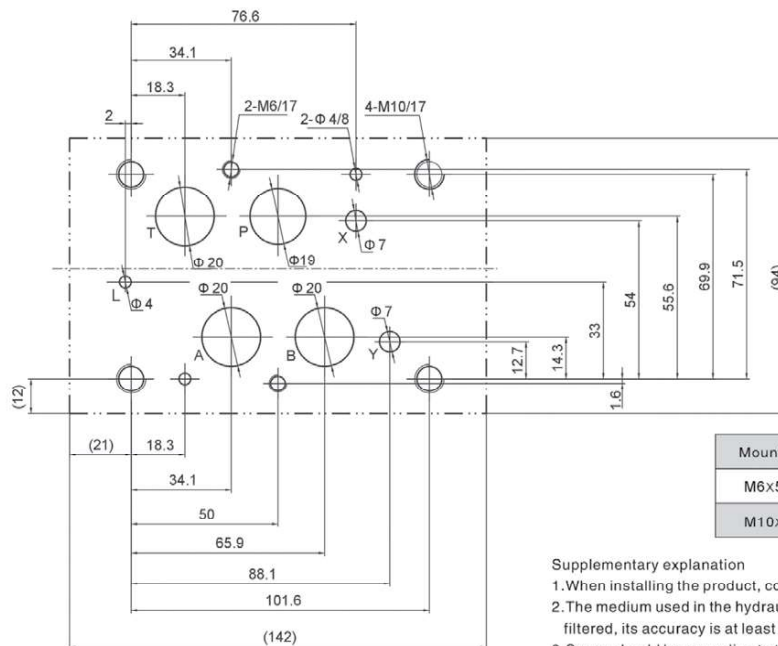
External dimensions



① ②

4/2 solenoid valve

Size of subplate oil port



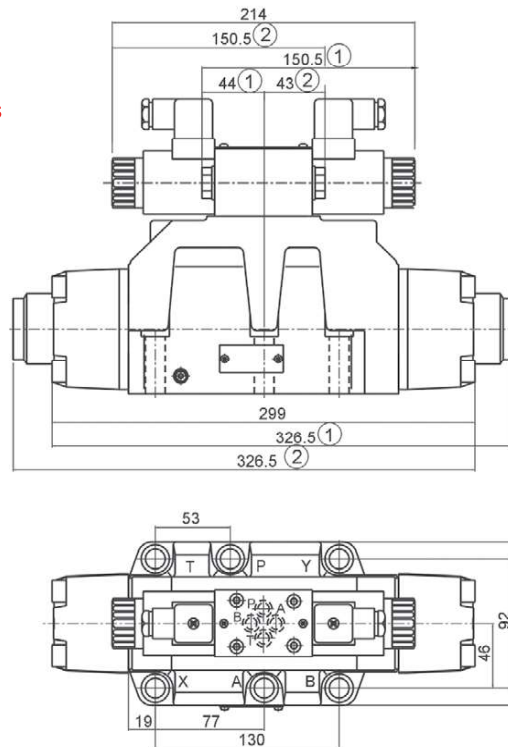
Mounting screw	Amount	Tighten torque
M6x55-10.9	2	15Nm
M10x60-10.9	4	75Nm

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.

CETOP 8 NG25

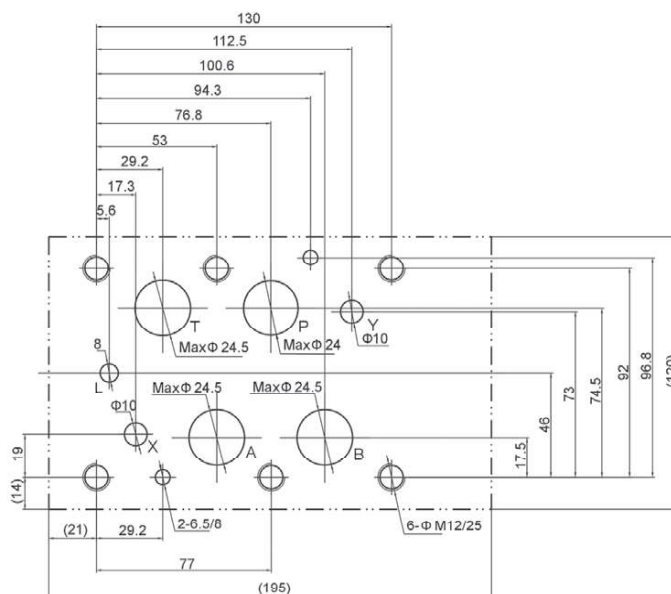
External dimensions



① ②

4/2 solenoid valve

Size of subplate oil port



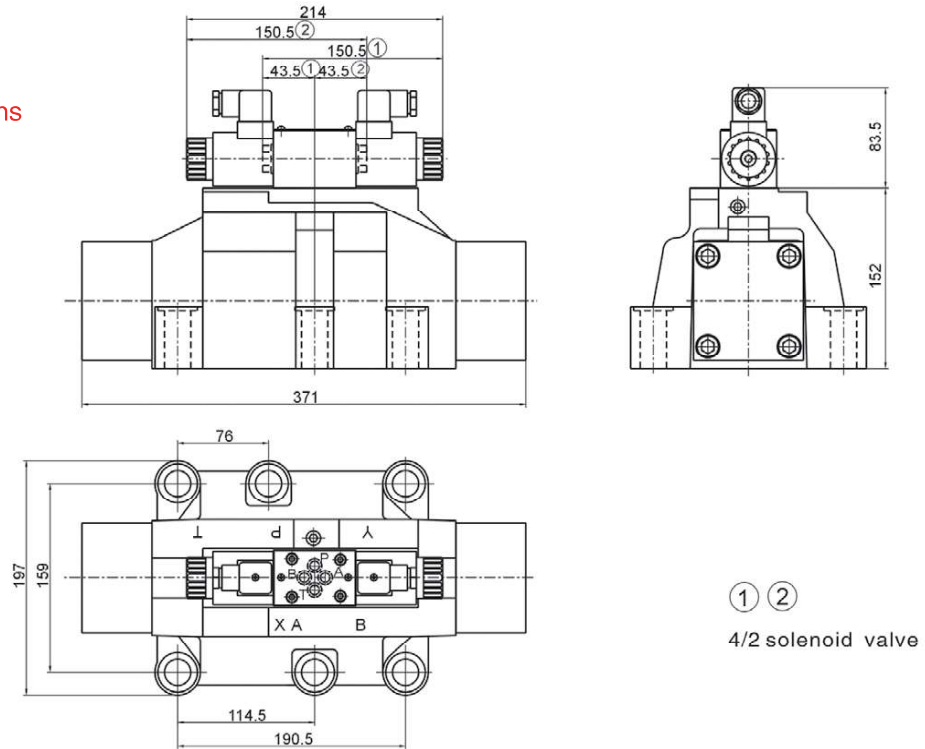
Mounting screw	Amount	Tighten torque
M12x60-10.9	6	130Nm

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.

CETOP 10 NG32

External dimensions



Size of subplate oil port

