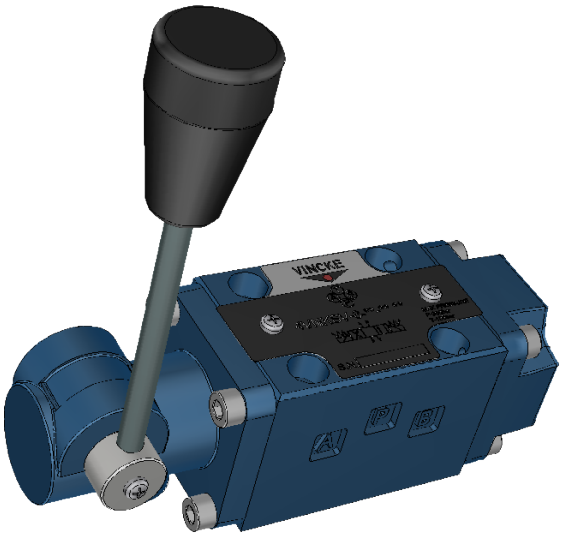
Manual operated directional control valve



Manual operated directional control valve is a directional control valve, by operating the handle, the spool moves in the axial direction to achieve oil loop switching.

Manual operated directional control valve and electrical operated directional control valve are played the same role in the hydraulic system. Easy operation, reliable work, and without the need for electricity

Technical specification

Specification		06	10
Working pressure (Mpa)	Port P,A,B	31.5	
	Port T	10	
Max. Flow (L/min)		60	100
Working fluid		Mineral oil: phosphate-ester	
Fluid temp. (°C)		-20~70	
Viscosity (mm^2/s)		2.8~380	
Weight (kg)		About 1.4	About 3.3

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

4VNK-MV-06-*-*-*-*

Manual operated directional control valve

Nominal size 6 Cetop 3 or 10 Cetop 5

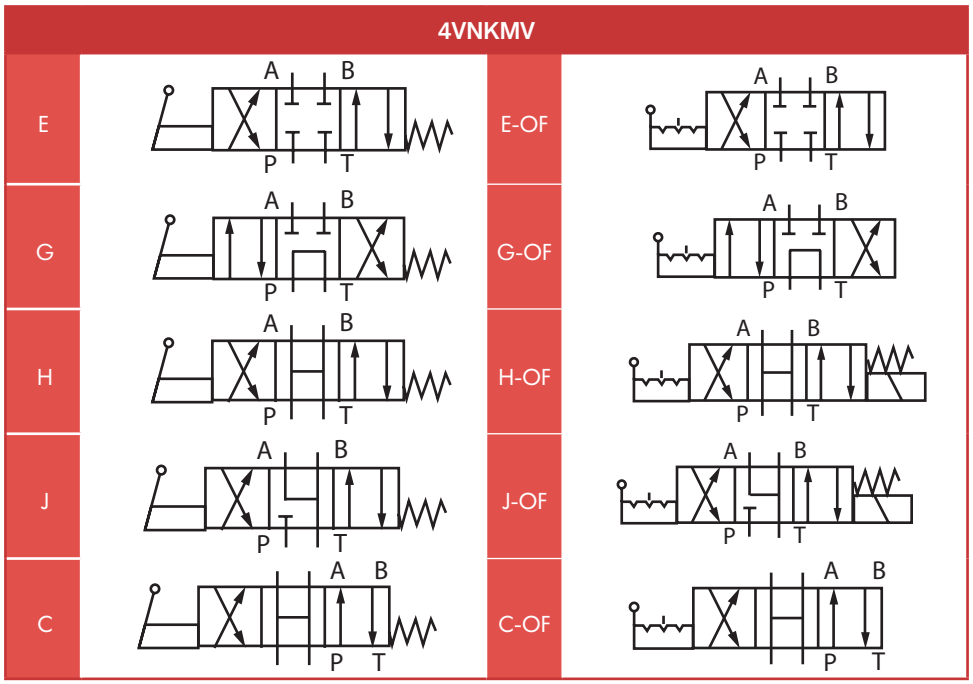
Spool type E, G, J etc.

Omit Spring return
OF With detent

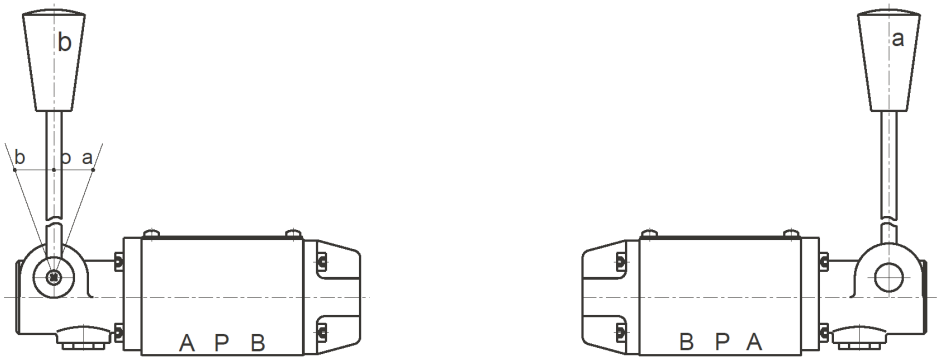
Seal material
Omit NBR Seals
V FPM Seals

Omit without damping
08 Φ0.8 Damping
10 φ1.0 Damping
12 Φ1.2 Damping

Code Symbol

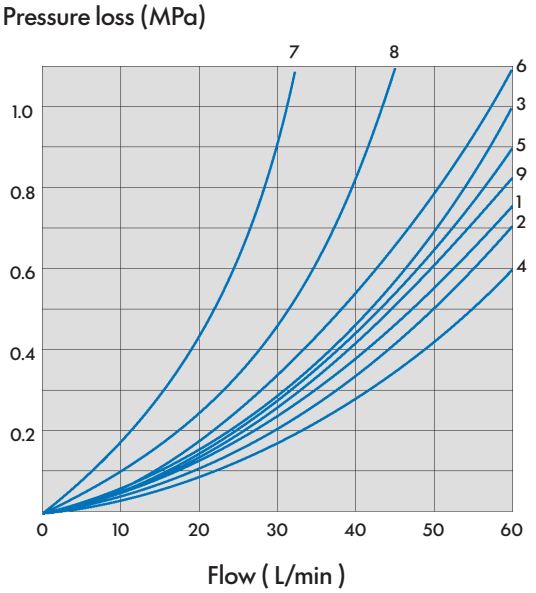


The relationship between the location of the handle and the directional of the oil flow



1. The name of the handle as shown in the picture
2. When the handle is on position P→B A→T
3. When the handle is on position P→A B→T
4. Oil flow in the opposite direction with the above-mentioned movement for 02/03: G.
   Oil flow in the opposite direction with the above-mentioned movement for 04/06: G.

Specification Performance curve

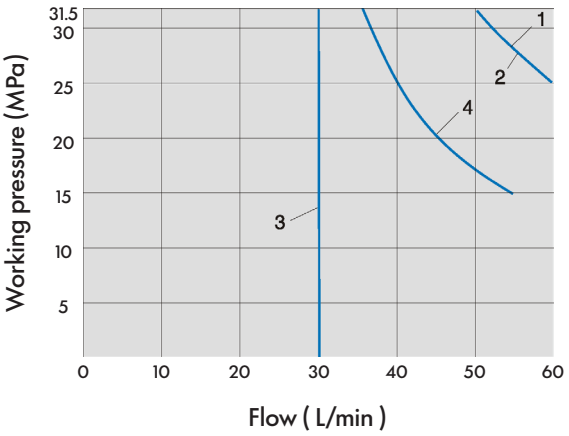


Function Code	Direction			
	P→A	P→B	A→T	B→T
C	1	1	3	1
E	3	3	1	1
G	6	6	9	9
H	2	4	2	2
J	1	1	2	1

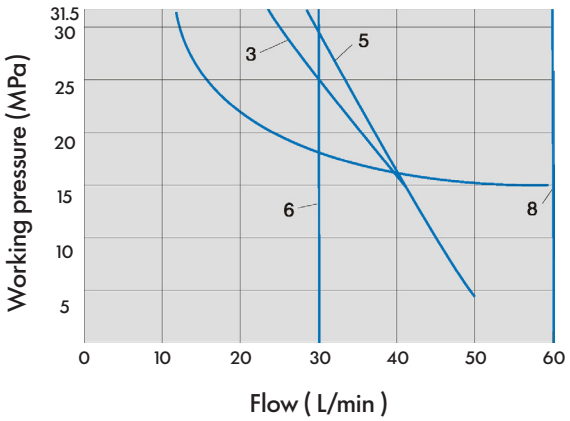
Specification Working limits

As the plug, the switch function of the valve is determined by the filter. In order to reach the largest flow as shown, we suggested to use full-flow filter 20 μ m. Every force on the valve can also affect the flow. 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.

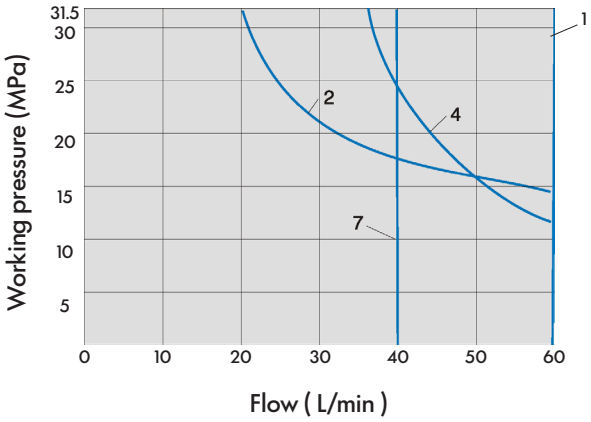
Without detent



Without detent



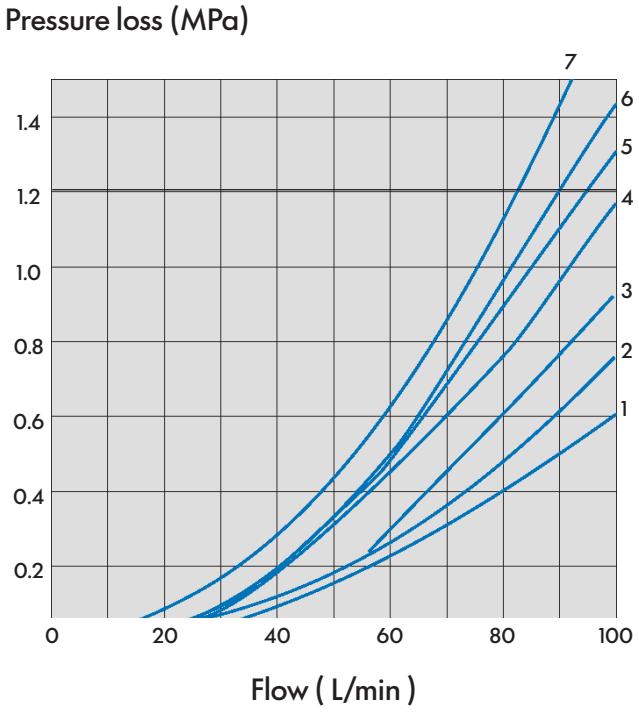
Without detent



4. Spool symbol "G" in the median position P to T.

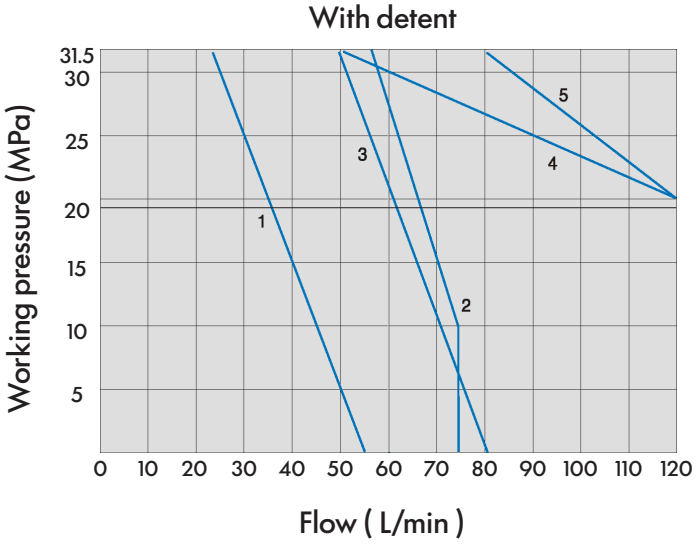
Performance curve		Function code
Without detent	1	E, H, C, G, J

Performance curve		Function code
With detent	1	H, C
	2	E, J
	3	G



	P→A	P→B	A→T	B→T
C	2	2	3	3
E	2	2	4	4
G	3	3	4	6
H	1	1	4	5
J	2	2	3	3

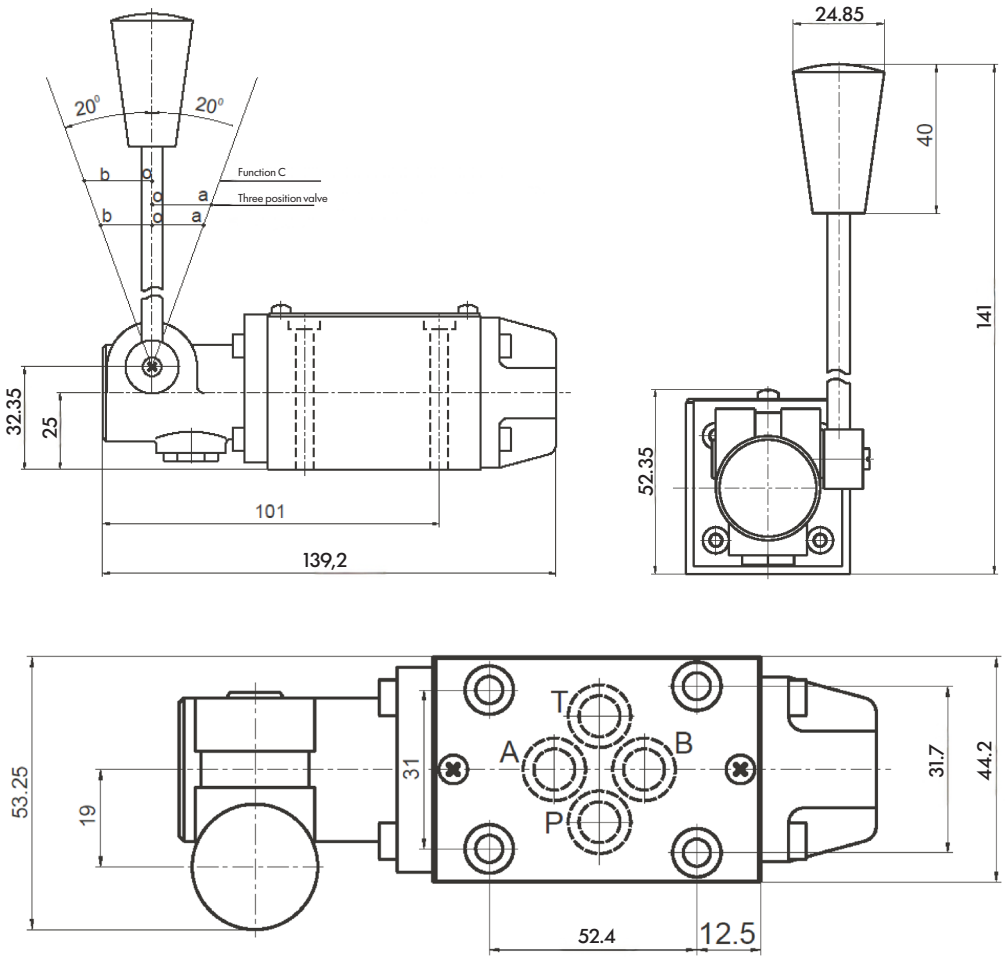
4. Spool symbol "G" in the median position P → T.



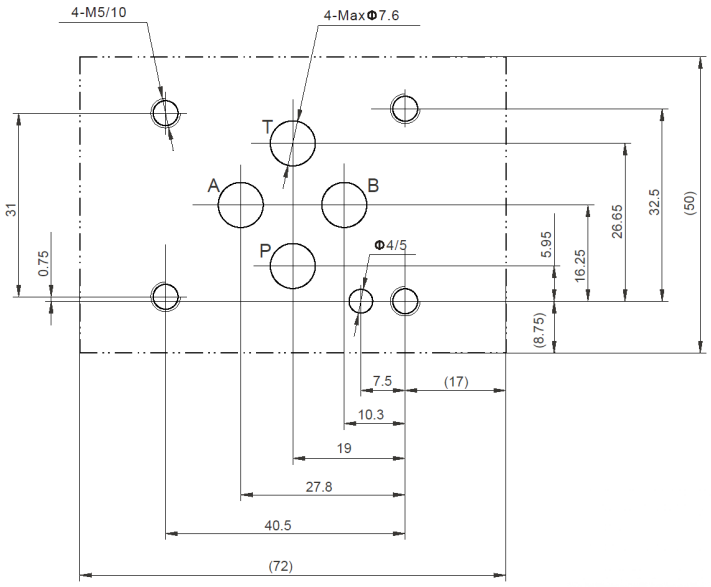
1	H
2	G
3	J
4	C, E

External dimensions

DN6 Cetop 3



Size of subplate oil port

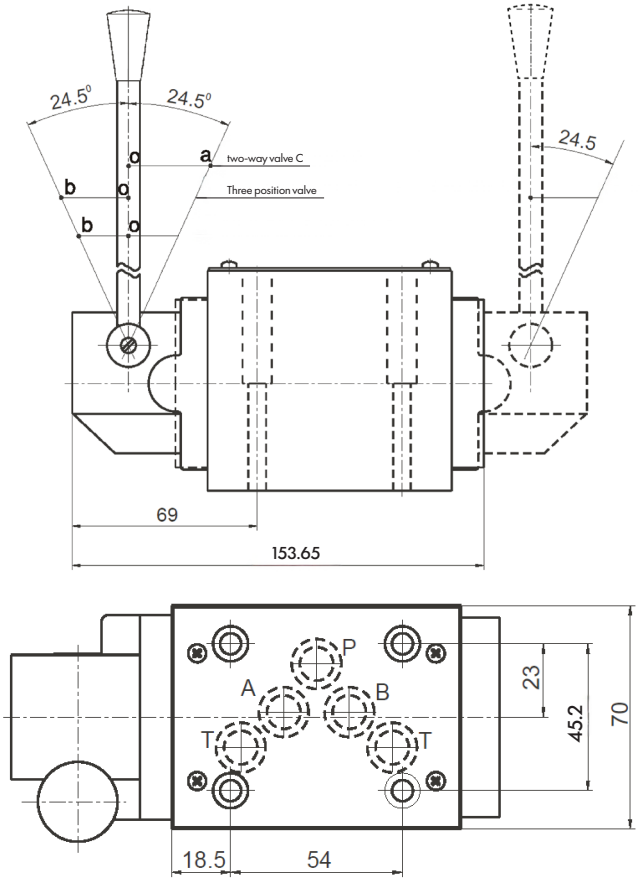


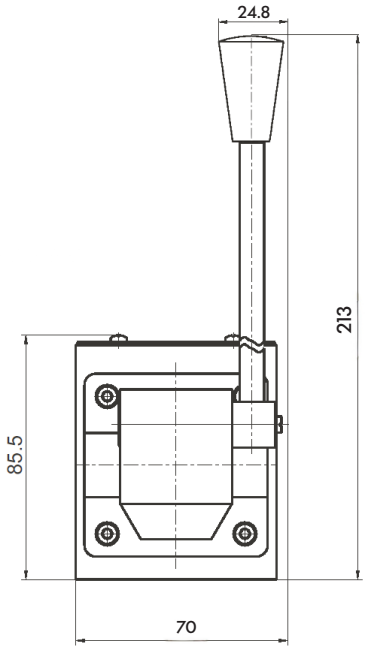
Mounting screw	Amount	Tighten torque
M5x50 - 10.9	4	9Nm

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 μ 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.

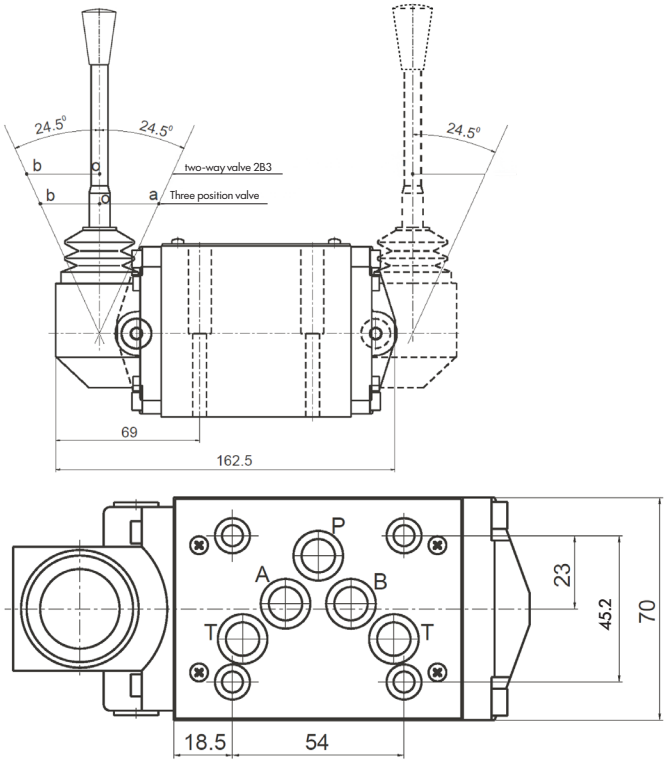
DN10 Cetop 5

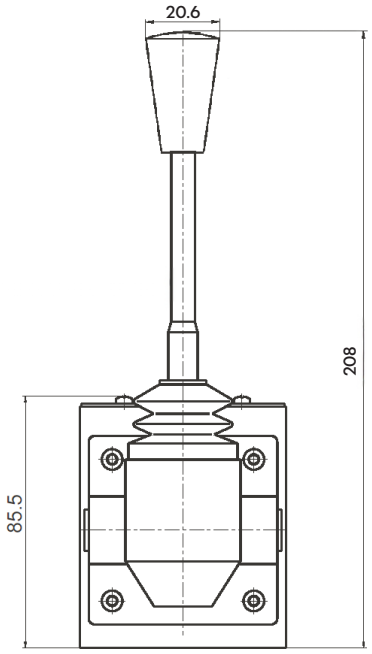
Without detent



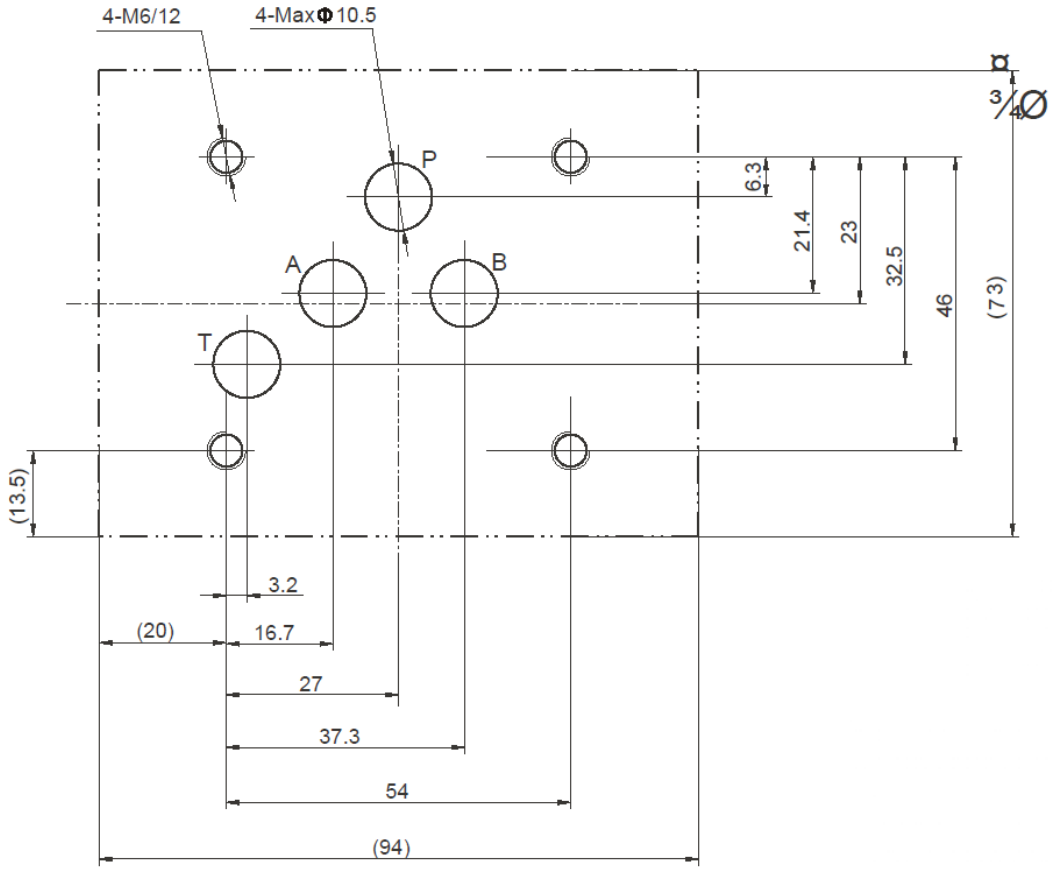


With detent





Size of subplate oil port



Mounting screw	Amount	Tighten torque
M6x50 - 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 μ 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.