ADH.5... 4/3 AND 4/2
PILOTED VALVES CETOP 5/NG10

brevini

Type ADH.5 distributors are intended for interrupting, inserting and diverting a hydraulic system flow. Normally these distributors are composed of a main stage, crossed by circuit main flow, and of a pilot stage available in several versions.
Various types of controls are available, used either individually or in combination for, among other functions, stroke limitation and main spool movement speed control, in order to optimize the hydraulic system operation where this type of valve is employed.

In those case where normally to drain spools are used, it is necessary to remember that the minimum changeover pressure due to the opposing springs is equal to approximately 7 bar (see the operating features table on page I•46) and consequently necessary to insert a check valve in the P way (as shown above).

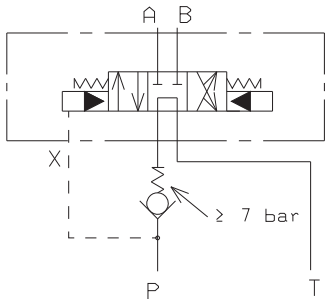
- Mounting surface in accordance with UNI ISO 4401 - 05 - 05 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-05).
- Pilot operated spool, solenoid controller.
- Stroke control of main spool.
- Presetting for pressure reducing valve mounting.
- Presetting for single-acting throttle valve mounting.

ADH.5...	
STANDARD SPOOLS FOR ADH.5	CH. I PAGE 50
TECH. SPECIFICATIONS ADH.5	CH. I PAGE 51
SUBPLATES BSH.5...	CH. I PAGE 52
CMP.30...	BFP CARTRIDGE CATALOGUE
CETOP 3/NG06	CH. I PAGE 8
STANDARD SPOOLS FOR AD.3.E	CH. I PAGE 10
AD.3.E...	CH. I PAGE 11
"D15" DC COILS	CH. I PAGE 19
"B14" AC SOLENOIDS	CH. I PAGE 19
STANDARD CONNECTORS	CH. I PAGE 20

ORDERING CODE

ADH	Piloted valve (Pilot valve and any mounting valves should be ordered separately)
5	CETOP 5/NG10
*	Mounting type (Table next page)
**	Spool type (Table next page)
*	Piloting and draining **I** = X internal / Y internal **IE** = X internal / Y external **EI** = X external / Y internal **E** = X external / Y external (see diagram at side)
**	**00** = No variant **LC** = Main spool stroke limiter
1	Serial No.

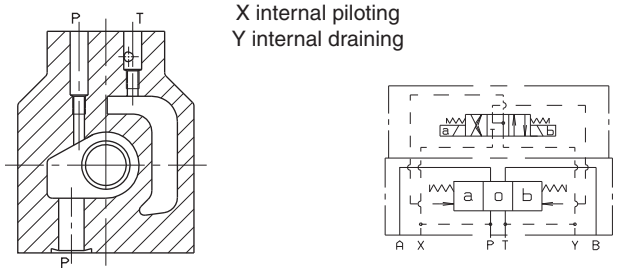
EXTERNAL CHECK ON P



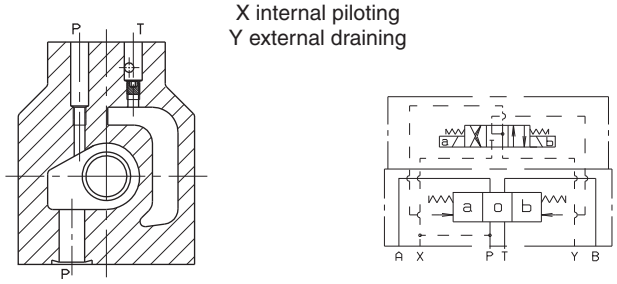
PLUGS ARRANGEMENT FOR THE PILOT AND DRAIN LINES

Plugs type used: M5x6 both for pilot and drain

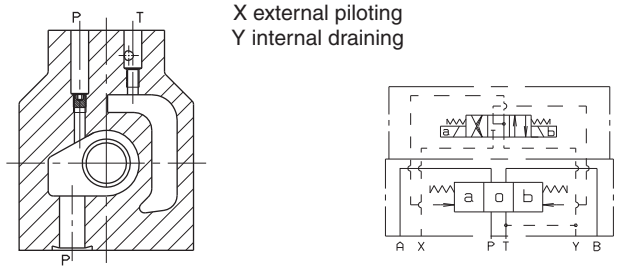
ADH.5...I
X internal piloting
Y internal draining



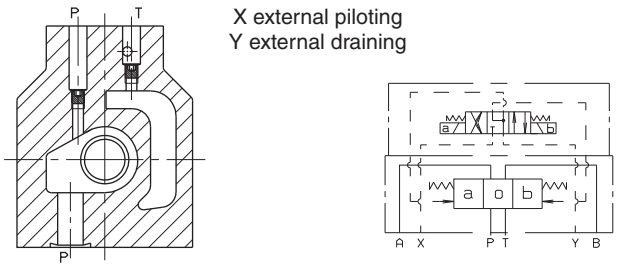
ADH.5...IE
X internal piloting
Y external draining



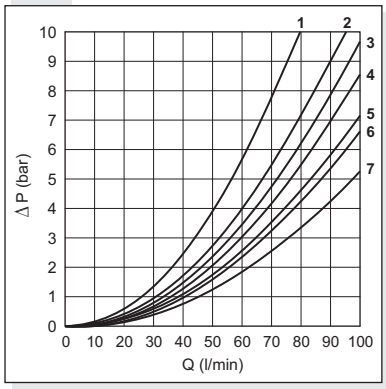
ADH.5...EI
X external piloting
Y internal draining



ADH.5...E
X external piloting
Y external draining



PRESSURE DROPS



The diagram an the side shows the pressure drops in relation to spools adopted for normal usage (see table).

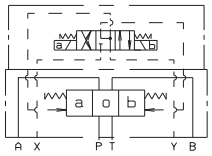
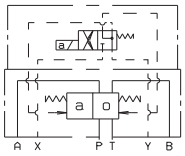
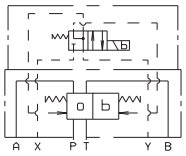
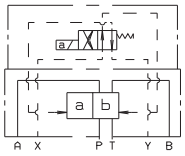
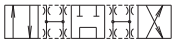
Tests carried out at a constant temperature of 40°C.

The fluid used was a mineral based oil with a viscosity of 46 mm²/s at 40°C.

Spool type	Connections				
	P→A	P→B	A→T	B→T	P→T
01	3	3	5	5	
02	3	3	6	6	3
03	3	3	6	6	
04	2	2	5	5	1
05	3	3	5	5	
06-66	3	3	6	6	
07		1	6		
10	3	3	5	5	
11	4		5		
22		4	5		
14-28	3	3	7	7	2
15	3	3	4	5	
16	3	3	4	5	
17	3	3			
	Curve No.				

SPOOLS AND MOUNTING TYPE

(* Spools with price increasing)

	C mounting	A mounting	B mounting	P mounting
Pilot Piloted	AD.3.E.03.C... ADH.5.C...	AD.3.E.03.E... ADH.5.A...	AD.3.E.03.F... ADH.5.B...	AD3E16E/AD3E16F ADH.5.P...
Scheme				
Spool type				
01				
02				
03				
04*				
05				
66				
06				
07*				
10*				
11*				
22*				
14*				
28*				
15				
16				
17				

PILOT SOLENOID CONTROL VALVE SPECIFICATIONS

FOR DIFFERENT CONTROLS, PLEASE CONTACT OUR TECHNICAL ARON SERVICE

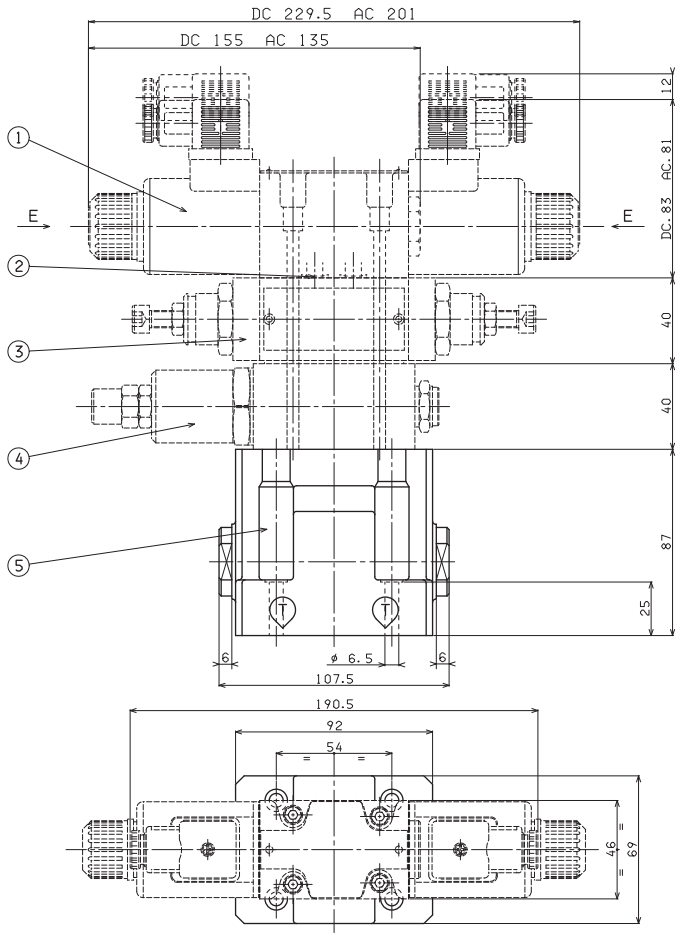
Max. operating pressure ports P/A/B	320 bar
Max. operating pressure port T (int. drainage)	160 bar
Max. pressure on T (ext. drainage)	250 bar
Max. piloting pressure	250 bar
Min. piloting pressure	7 bar
Max. flow	100 l/min
Piloting oil volume engagement 3 position valves	0,8 cm^3
Piloting oil volume engagement 2 position valves	1,6 cm^3
Hydraulic fluid	mineral oil DIN 51524
Fluid viscosity	10 ÷ 500 mm^2/s
Fluid temperature	-20°C ÷ 75°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$
Weight ADH5 without pilot valve	2,7 Kg
Weight ADH5 with pilot valve with 1 AC solenoid	4 Kg
Weight ADH5 with pilot valve with 1 DC solenoid	4,2 Kg
Weight ADH5 with pilot valve with 2 AC solenoids	4,3 Kg
Weight ADH5 with pilot valve with 2 DC solenoids	4,7 Kg

SWITCHING TIMES PILOTED VALVE

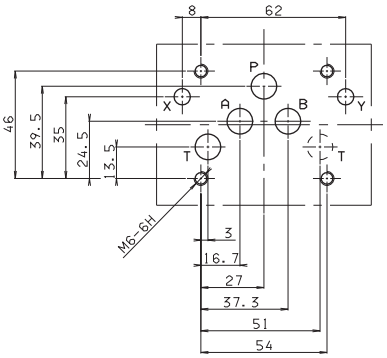
OPERATING PRESSURE (bar)	CURRENT	ENERGIZING centre-extern (ms)	DE-ENERGIZING extern-centre (ms)
50 100 200	ALTERNATING	30 25 20	50
50 100 200	DIRECT	40 35 30	60

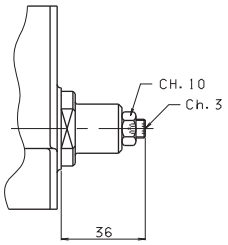
3 position valve. The values are indicative and depend on the hydraulic circuit, the fluid used and the variations in pressure, flow rate and temperature.

OVERALL DIMENSIONS



CETOP 5 MOUNTING SURFACE





SPOOL STROKE ADJUSTMENT

1 Piloted solenoid valve type **AD3E... CETOP 3/NG6**
2 Calibrated diaphragms for **AD3E...**
3 Flow regulation valve type **AM3QF..C**
4 Pressure reduction valve type **AM3RD..C**
5 Main valve type **ADH5..E**

Fixing screws UNI 5931 M6x35
with material specifications 12.9
Tightening torque 8 N / 0,8 Kgm

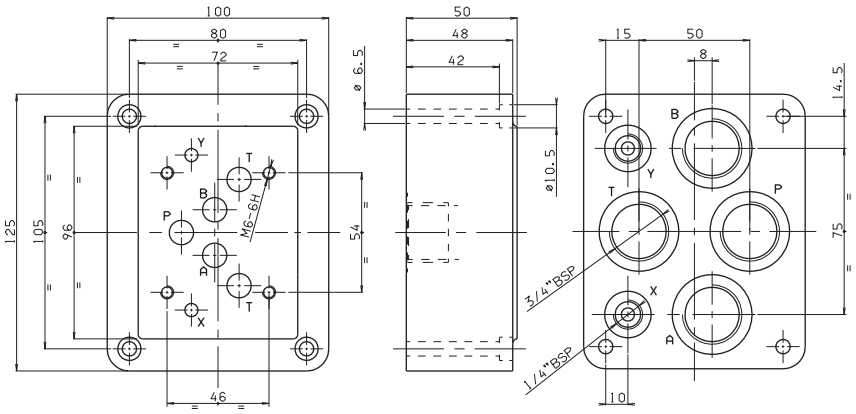
1

BSH.5.13 WITH P, T AND A, B REAR 3/4" BSP, X AND Y CLEARANCE HOLES

BSH	Single plate for piloted valve
5	CETOP 5/NG10
13	3/4" BSP rear connectors
00	No variant
1	Serial No.

Weight: 3,8 Kg

Fixing screws M6x50 UNI 5931

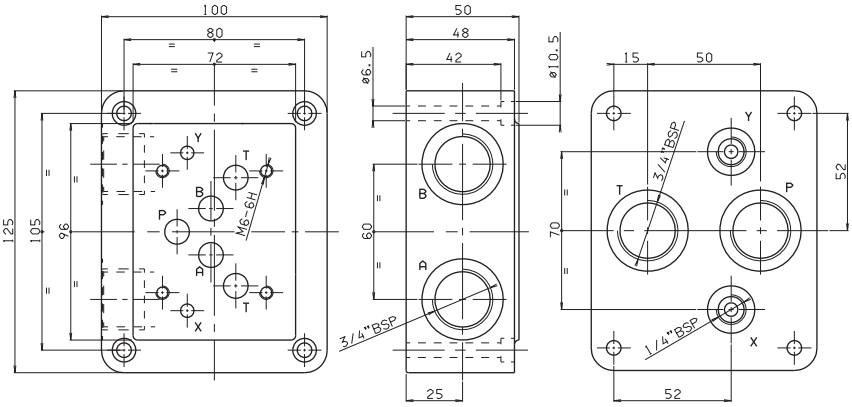


BSH.5.17 WITH P AND T REAR AND A, B SIDE 3/4" BSP, X AND Y CLEARANCE HOLES

BSH	Single plate for piloted valve
5	CETOP 5/NG10
17	3/4" BSP rear and side connectors
00	No variant
1	Serial No.

Weight: 3,9 Kg

Fixing screws M6x50 UNI 5931

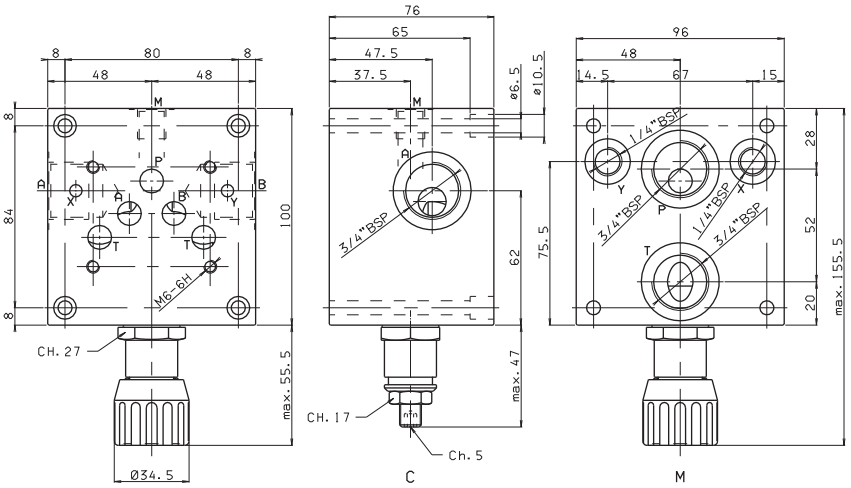


BSH.5.31 WITH P AND T REAR, A AND B SIDE 3/4" BSP, X AND Y CLEARANCE HOLES WITH MAXIMUM PRESSURE VALVE

BSH	Single plate for piloted valve
5	CETOP 5/NG10
31	3/4" BSP rear and side connectors
*	**M** = Plastic knob **C** = Grub screw
*	Setting ranges **1** = Max 50 bar **2** = Max 140 bar **3** = Max 320 bar
* *	**00** = No variant **V1** = Viton
2	Serial No.

Weight: 5,5 Kg

Fixing screws M6x75 UNI 5931



• For the minimum permissible setting pressure depending on the spring, see minimum setting curve pressure CMP30