



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



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•45) and consequently necessary to insert a check valve in the P way (as shown above).

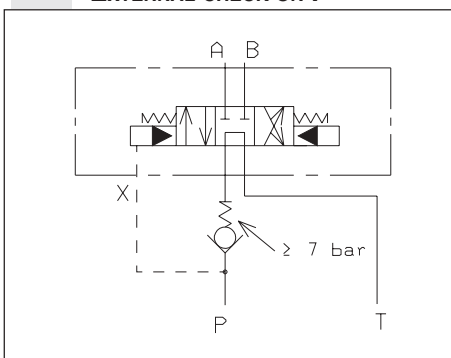
- Mounting surface in accordance with UNI ISO 4401 - 05 - 05 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-05).
- Pilot operated spool, solenoid controller.
- Stroke control of main spool.
- Presetting for pressure reducing valve mounting.
- Presetting for single-acting throttle valve mounting.

ADH.5...	
STANDARD SPOOLS FOR ADH.5	CH. I PAGE 49
TECH. SPECIFICATIONS ADH.5	CH. I PAGE 50
SUBPLATES BSH.5...	CH. I PAGE 51
CMP.30...	CH. V PAGE 21
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 18
"K12" AC SOLENOIDS	CH. I PAGE 18
STANDARD CONNECTORS	CH. I PAGE 19

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

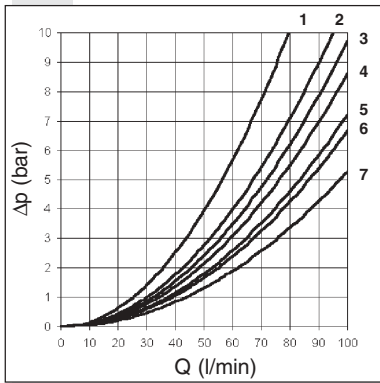


PLUGS ARRANGEMENT FOR THE PILOT AND DRAIN LINES

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 on 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)

(*) For the E mounting the locating spring works only with the steady system

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

1

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

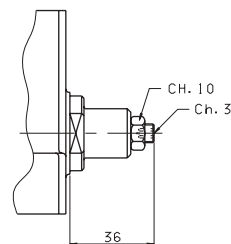
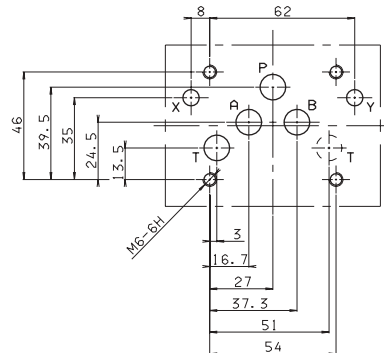
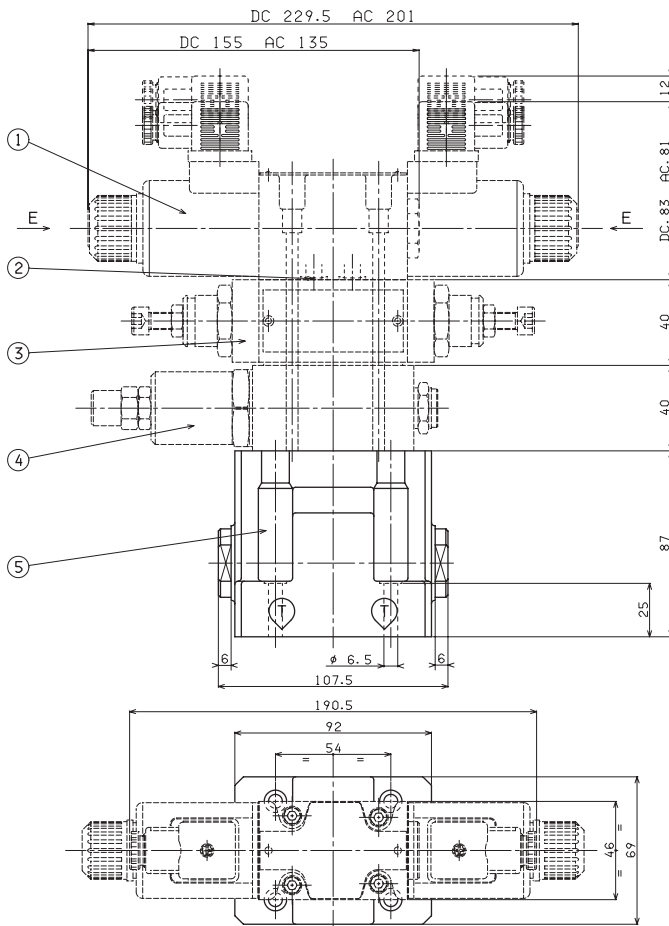
SWITCHING TIMES PILOTED VALVE

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

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

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

- 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**