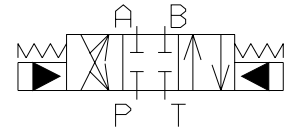
**ADPH5...**

STANDARD SPOOLS FOR ADPH5	CAP. I • 51
TECH. SPECIFICATIONS ADPH5	CAP. I • 52
CETOP 2/NG04	CAP. I • 2
AD2E...	CAP. I • 4
"A09" DC COILS	CAP. I • 4
STANDARD CONNECTORS	CAP. I • 20

ADPH5... PILOTED VALVES CETOP 5/NG10 WITH CETOP 2/NG4 PILOT VALVE

These ADPH 5 valves are used primarily for controlling the starting, stopping and direction of fluid flow. These kind of distributors are composed by a main stage crossed by the big flow from the pump (ADPH5) and by a cetop 2 pilot directional solenoid valve (AD2E) available with different mounting type .

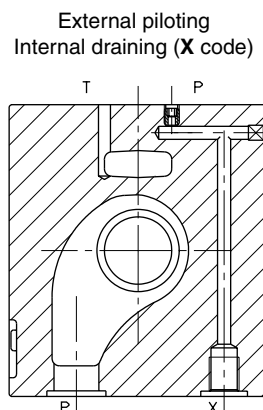
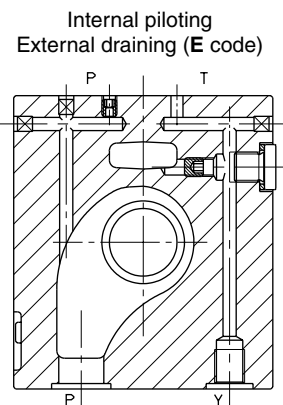
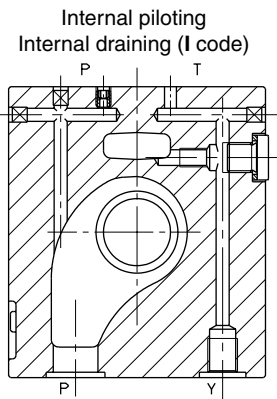
When a short response time is requested, a special version of solenoids with high dynamics is available with the code AD2E****FF2 (please, contact our technical department).

HYDRAULIC SYMBOL**ORDERING CODE**

- ADPH** Piloted valve
The pilot valves AD2E... must be ordered separately
- 5** CETOP 5/NG10
- **** Spool type (Table next page)
- *** Mounting (Table next page)
Standard orifice at port P: \varnothing 1mm
- *** Orifice type on Cetop 2 valves (Table 1)
0 = none
A/B/C/D/E/F/G = orifice on line A
H/I/L/M/N/P/Q = orifice on line B
- *** Piloting and draining type (Tab.2)
I = internal piloting
internal draining
E = internal piloting
external draining
X = external piloting
internal draining
(special body)
- 00** No variant
- 1** Serial No.

TAB.1 - ORIFICE ON LINE A/B

On line A	On line A	\varnothing (mm)
0	0	—
A	H	0,5
B	I	0,6
C	L	0,7
D	M	0,8
E	N	0,9
F	P	1,0
G	Q	1,2

TAB.2 - PLUGS DISPOSAL

ADPH5... PILOTED VALVES 5/NG10 WITH CETOP 2/NG4 PILOT VALVE

HYDRAULIC SYMBOLS, SPOOLS AND MOUNTING

(* Spools with price increasing)

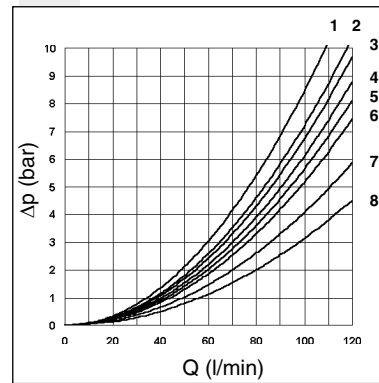
1

"A" MOUNTING			
Pilot Piloted	AD.2.E.03.E... ADPH.5.**.A...		
Scheme			
Spool type		Covering	Transient position
01		+	
02		-	
03		-	
04*		-	
06		+	
15		-	
16		+	

"B" MOUNTING			
Pilot Piloted	AD.2.E.03.F... ADPH.5.**.B...		
Scheme			
Spool type		Covering	Transient position
01		+	
02		-	
03		-	
04*		-	
06		+	
15		-	
16		+	

"C" MOUNTING			
Pilot Piloted	AD.2.E.03.C... ADPH.5.**.C...		
Scheme			
Spool type		Covering	Transient position
01		+	
02		-	
03		-	
04*		-	
06		+	

PRESSURE DROPS



The diagram at the side shows the pressure drop curves for spools during normal usage. The used fluid is a mineral oil with a viscosity of 46 mm²/s at 40°C; the tests have been carried out at a fluid temperature of 40°C. For flow rates higher than those in the diagram, the losses will be those expressed by the following formula:

$$\Delta p1 = \Delta p \times (Q1/Q)^2$$

where Δp will be the value for the losses for a specific flow rate Q which can be obtained from the diagram, $\Delta p1$ will be the value of the losses for the flow rate Q1 that is used.

Spool type	Connections				
	P→A	P→B	A→T	B→T	P→T
01	4	4	7	7	
02	6	6	8	8	7
03	3	3	8	8	
04	4	4	2	2	3
06	4	4	7	8	
15	2	2	5	5	
16	1	1	2	2	
Curve No.					

ADPH5... PILOTED VALVES 5/NG10 WITH CETOP 2/NG4 PILOT VALVE

1

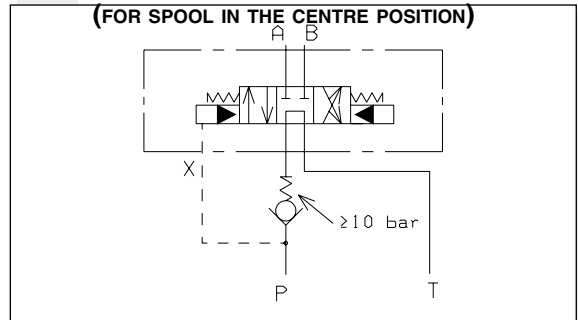
PILOT SOLENOID CONTROL VALVE SPECIFICATIONS

Max. operating pressure: ports P/A/B	250 bar
Max. operating pressure: port T (dynamic)	70 bar
Max. piloting pressure	250 bar
Min. piloting pressure	10 bar
Max. flow	120 l/min
Switching times (*see note below)	Energizing: 20 ms De-energizing: 50 ms
Piloting oil volume for engagement	1 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 $\beta_{25} \geq 75$ plate
Mounting	
Weight ADPH5 without pilot valve	3,4 Kg
Weight ADPH5 with pilot valve with one solenoid	4,3 Kg
Weight ADPH5 with pilot valve with two solenoids	4,5 Kg

(* All the tests have been carried out with AD2E pilot valve with variant FF, mounting type C, spool 03, flow 100 l/min, pressure 160 bar, back pressure on the T line of 2 bar and oil temperature 40°C.

EXTERNAL BACK PRESSURE ON LINE P

(FOR SPOOL IN THE CENTRE POSITION)



When the main spool connect P to T in the centre position, the minimum pressure of 10 bar is needed to move the main spool (see the "Specifications"); for this reason a check valve on the P line (see the drawing above) is necessary.

OVERALL DIMENSIONS AND MOUNTING SURFACE

