

Распределители двухкаскадные ARON CETOP 7 / NG16 ADH.7

Технические характеристики

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Астана (7172)727-132	Иркутск (395)279-98-46	Москва (495)268-04-70	Ростов-на-Дону (863)308-18-15	Тверь (4822)63-31-35
Астрахань (8512)99-46-04	Казань (843)206-01-48	Мурманск (8152)59-64-93	Рязань (4912)46-61-64	Томск (3822)98-41-53
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ADH.7...

STANDARD SPOOLS FOR ADH.7	CH. I PAGE 53
TECH. SPECIFICATIONS ADH.7...	CH. I PAGE 54
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ADC.3...	CH. I PAGE 5
"A09" DC COILS	CH. I PAGE 7
"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 valves and any modulating valves should be ordered separately**

7

CETOP 7/NG16

Mounting type (see next page)

Spool type (see 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 Tab.1 at side)

R

Check valve incorporated at port P (Tab. 2) Only for **I** and **IE** versions (omit if not required)

00 = No variant

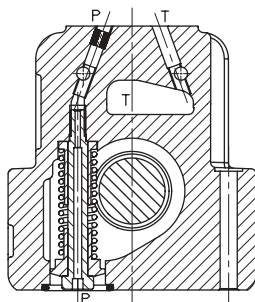
LC = Main spool stroke limiter

2

Serial No.

TAB. 2 - INTERNAL CHECK ON P

ADH7*.***.R.**.2 VERSION



• For the spools 02-04-14-28 the piloting is normally external; the internal piloting is possible only with the internal check valve (R).

ADH.7... 4/3 AND 4/2 PILOTED VALVES CETOP 7/NG16

Type ADH.7 distributors are intended for interrupting, inserting and diverting a hydraulic system flow. Normally these distributors are composed of a main stage, crossed by the 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.

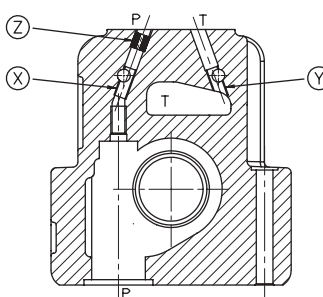
In those cases where normally to drain spools are used, it is necessary to remember that the minimum changeover pressure due to the opposing springs is equal to approximately 5 bar (see the operating features table next pages) and it is consequently necessary to specify when ordering the check valve incorporated in the P line, if required (as shown below).

- Mounting surface in accordance with UNI ISO 4401 - 07 - 06 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-07).
- Pilot operated spool, solenoid controller.
- Stroke control of main spool.
- Presetting for pressure reducing valve mounting.
- Presetting for single-acting throttle valve mounting.

TAB.1 - PLUGS ARRANGEMENT FOR THE PILOT AND DRAIN LINES

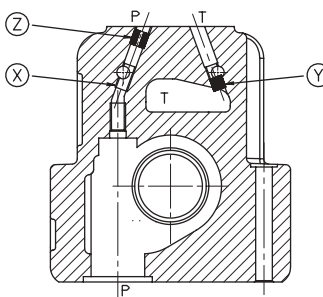
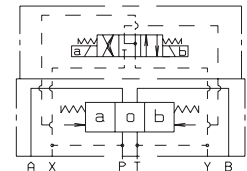
Plugs type used: M5x5 both for pilot and drain.

Note: standard M6x6 orifice Ø1,5 insert in the P port (Z)



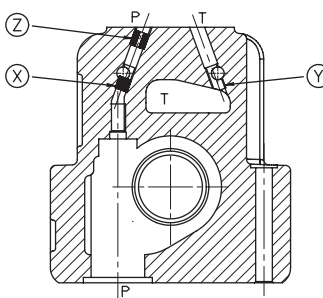
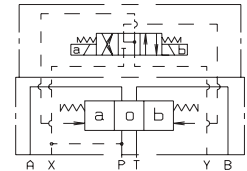
ADH.7...I

X internal piloting
Y internal draining



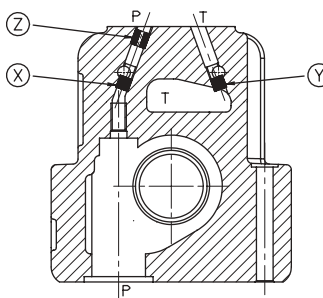
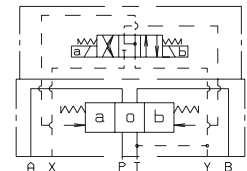
ADH.7...IE

X internal piloting
Y external draining



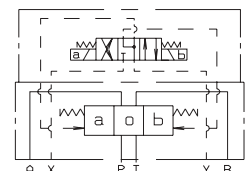
ADH.7...EI

X external piloting
Y internal draining



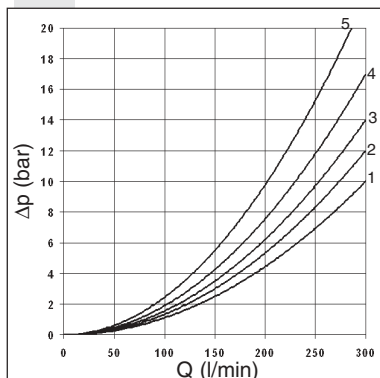
ADH.7...E

X external piloting
Y external draining



ADH.7... 4/3 AND 4/2 PILOTED VALVES CETOP 7/NG16

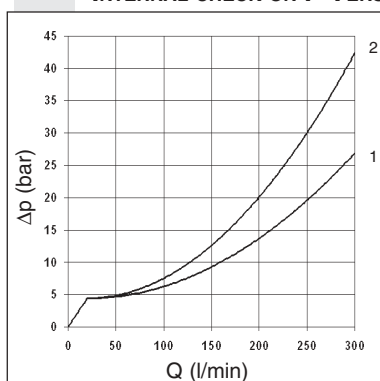
PRESSURE DROPS



The two diagrams show the "Pressure drops" in relation to spools adopted for normal usage (see table).

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

PRESSURE DROPS FOR INTERNAL CHECK ON P VERSION



Spool type	Connections		
	P→A	P→B	P→T
02	1	1	1
04	1	1	2

Curve No.

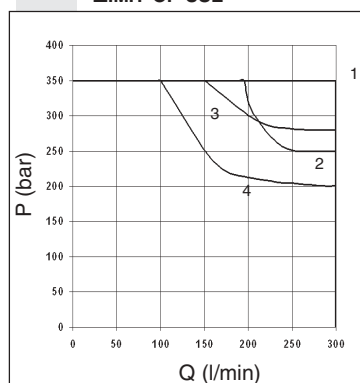
The limit of use test has been carried out with external draining and orifice Ø1,5 insert in the P port (Z). The fluid used was a mineral based oil with a viscosity of 46 mm²/s at 40° C.

(*) For the "E mounting" the locating spring works only with the steady system (* Spools with price increasing)

Spool type		Connections				
		P→A	P→B	A→T	B→T	P→T
01	ENERGIZING DE-ENERGIZ.	2	1	3	3	
02	ENERGIZING DE-ENERGIZ.	1	1	3	3	2
03	ENERGIZING DE-ENERGIZ.	2	1	3	3	
04	ENERGIZING DE-ENERGIZ.	2	2	4	4	5
05	ENERGIZING DE-ENERGIZ.	1	1	2	2	
66	ENERGIZING DE-ENERGIZ.	2	1	2	3	4
10	ENERGIZING DE-ENERGIZ.	2	1	3	3	
14	ENERGIZING DE-ENERGIZ.	1	1	3	3	4
28	ENERGIZING DE-ENERGIZ.	1	1	3	3	4
23	ENERGIZING DE-ENERGIZ.	2	1	3	3	

Curve No.

LIMIT OF USE



Spool type	No. Curve
01	1
02	2
03	1
04	3
05	1
66	1
10	1
14	4
28	4
23	1

SPOOLS AND MOUNTING TYPE

	C mounting	A mounting	B mounting	E mounting (*)	P mounting
Pilot	AD.3.E.03.C...	AD.3.E.03.E...	AD.3.E.03.F...	AD.3.E.16.E...	AD3E16E/AD3E16F
Piloted	ADH.7.C...	ADH.7.A...	ADH.7.B...	ADH.7.E...	ADH.7.P...
Scheme					
Spool type					
01					
02					
03					
04*					
05					
66					
10*					
14*					
28*					
23*					

ADH.7... 4/3 AND 4/2 PILOTED VALVES CETOP 7/NG16

PILOT SOLENOID CONTROL VALVE SPECIFICATIONS

FOR DIFFERENT CONTROLS, PLEASE CONTACT OUR TECHNICAL ARON SERVICE

Max. operating pressure ports P/A/B	350 bar
Max. operating pressure port T (int. drainage)	160 bar
Max. operating pressure port T (ext. drainage)	250 bar
Max. piloting pressure	210 bar
Min. piloting pressure	12 bar
Max flow	300 l/min.
Piloting oil volume for engagement 3 position valves	4 cm ³
Piloting oil volume for engagement 2 position valves	8 cm ³
Hydraulic fluid	mineral oil DIN 51524
Fluid viscosity	2.8 ÷ 380 mm ² /s
Fluid temperature	-20°C ÷ 70°C
Ambient temperature	-20°C ÷ 50°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$
Weight ADH7 without pilot valve	7 Kg
Weight ADH7 with pilot valve with 1 AC solenoid	8,2 Kg
Weight ADH7 with pilot valve with 1 DC solenoid	8,4 Kg
Weight ADH7 with pilot valve with 2 AC solenoids	8,5 Kg
Weight ADH7 with pilot valve with 2 DC solenoids	9 Kg

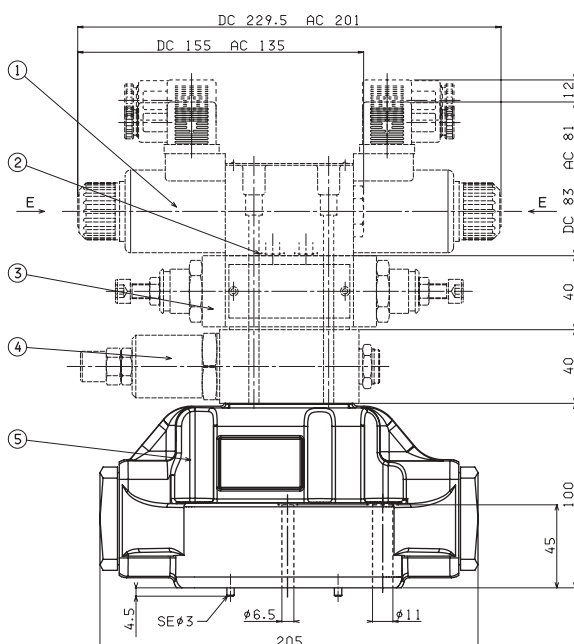
Note: the solenoid valve type **ADC.3.E...** (with A09 coil) and **AD3.E...** (with D15 or K12 coils) could be used both as piloted valve, without any changement of technical features.

Switching time

Such values refer to a tests carried out with Aron solenoid valve type AD3E03 with P = 100 bar pressure and Q = 100 l/min flow. Orifice $\phi 1.5$ mm, insert on piloting port, using a mineral oil at 40°C. with 46 mm²/s viscosity.

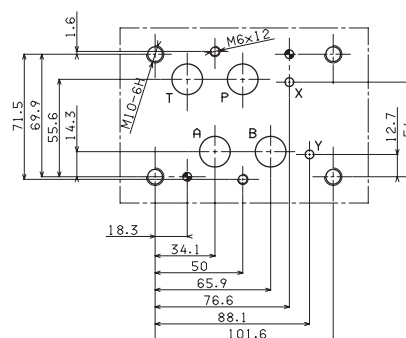
TEMPI DI RISPOSTA VALVOLA PILOTATA

Solenoids	ENERGIZING ±10% (ms)			DE-ENERGIZING ±10%(ms)	
No. Spool	01 - 03			01 - 03	
Scheme	2 positions	3 positions	2 positions	3 positions	
AC	50	20	25	30	
DC	70	35	40	50	
No. Spool	02	04	02 - 04	02 - 04	
Scheme	2 posit.	2 posit.	3 posit.	2 positions	3 positions
AC	35	60	30	25	25
DC	55	80	40	40	50



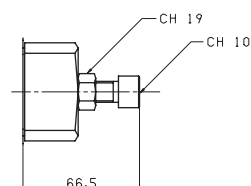
- 1 Piloted solenoid valve type **AD3E...** or **ADC.3.E...** CETOP 3/NG6
- 2 Calibrated diaphragms **AD3E...**
- 3 Flow regulation valve type **AM3QF..C**
- 4 Pressure reduction valve type **AM3RD..C**
- 5 Main valve type **ADH7..E**

CETOP 7 MOUNTING SURFACE



- Piloted valve fixing:
n° 4 screws T.C.E.I. M10x60 - Tightening torque 40 Nm
n° 2 screws T.C.E.I. M6x55 - Tightening torque 8 Nm
Fixing screws UNI 5931 with material specifications 12.9
- Seals:
n° 4 OR 2-118 PARKER (type 130)
n° 2 OR 2-013 PARKER (type 2043)

SPOOL STROKE ADJUSTMENT



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