

AD3I... AUTOMATIC RECIPROCATING VALVES CETOP 3



AD3I...

These automatic reciprocating valves, with interface UNI ISO 4401 - 03 - 02 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-03), reverse the movement of an actuator every time the flow through the valve stops. With no max. pressure valves inside the body, the spool is moved by two springs and locked by unbalanced pressure inside valve; when no more flow is crossing the valve, the spool changes the position inverting the direction of the actuator.

Max. operating pressure port P	320 bar
Max. flow	30 l/min
Minimum permitted flow	3 l/min
Fluid viscosity	20 ÷ 200 mm ² /s
Fluid temperature	-20°C ÷ 60°C
Max. contamination level(*)	class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$
Positioner activating force (measured with 1 bar on the T line)	130 N
Weight of version without positioner	0,95 Kg
Weight of version with positioner	1 Kg

(*) Max contamination level must be respect to obtain the right function of the valve

With a preferential starting P → B and A → T position, these valves are mainly used to control the movement compactors or system where is not possible to use electrical device.

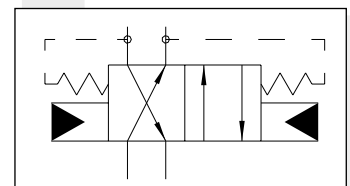
ORDERING CODE

AD	Directional valve
3	CETOP 3/NG6
I	Automatic reciprocating valve at null flow
* (1)	P = Version with positioner to adjust the pressure relief valve of the system
**	00 = No variant V1 = Viton
1	Serial No.

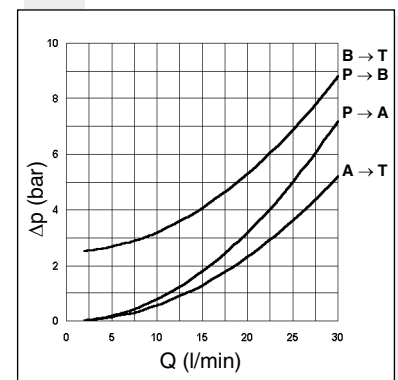
(1) Omit if not required the positioner

Tests carried out with mineral oil at a temperature of 40°C with viscosity of 46 mm²/s.

HYDRAULIC SYMBOL

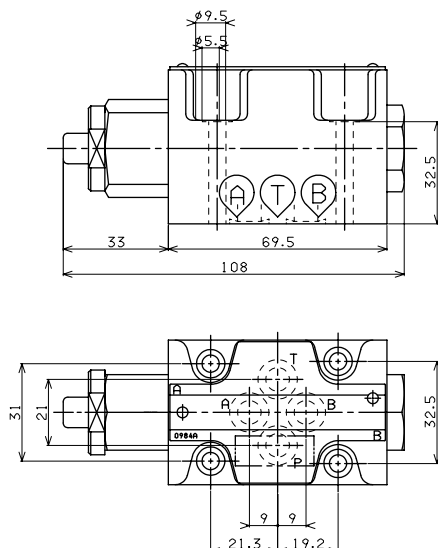


PRESSURE DROPS

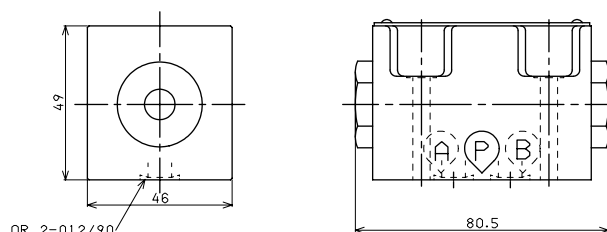


OVERALL DIMENSIONS

With positioner (P)

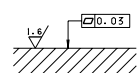


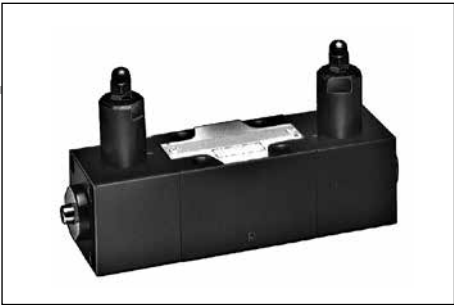
Without positioner



Fixing screws UNI 5931 M5x40
with material specifications min. 8.8
Tightening torque 5 Nm / 0.5 Kgm

Support plane specifications





AD3RI...

AD3RI... AUTOMATIC RECIPROCATING VALVES CETOP 3

This valve type is characterized by fully hydraulic operation, as it takes advantage of the system pressure rise to cause an automatic and continuous inversion of the utilization. The change-over takes place when the system pressure exceeds the inversion valves calibration pressure, and therefore also in not predetermined positions. At cylinder stroke end, the overall maximum pressure valve should be adjusted on a value 30% higher than the system operating pressure.

Max. operating pressure	320 bar
Max. pressure port T	160 bar
Min. recommended pressure	15 bar
Max. flow	25 l/min
Min. flow	2 l/min
Setting ranges:	Spring 1 15 ÷ 50 bar
	Spring 2 20 ÷ 140 bar
	Spring 3 50 ÷ 320 bar
Fluid viscosity	10 ÷ 60 mm ² /s
Fluid temperature	-20°C ÷ 75°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter β ₂₅ ≥ 75
Weight	2,3 Kg

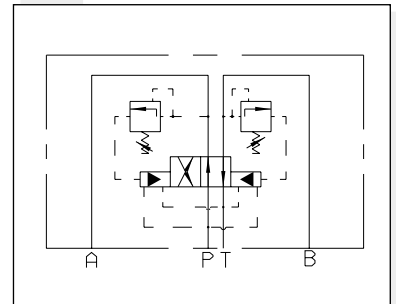
The inverter valves pressure calibration values should be 15% lower than that of the overall maximum pressure valve, and 15% higher than the maximum operating pressure.

Note: to operate the push button emergency, a minimum pressure of 3 bar on the actuator is needed.

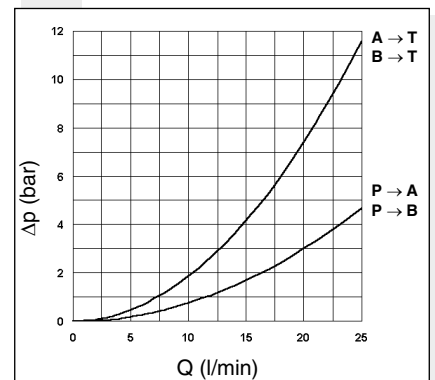
ORDERING CODE

AD	Directional valve
3	CETOP 3/NG6
RI	Automatic reciprocating valve hydraulically operated automatic reciprocation
211	Scheme
Z	No voltage
*	Setting ranges: 1 = 15 ÷ 50 bar 2 = 20 ÷ 140 bar 3 = 50 ÷ 320 bar
**	00 = No variant V1 = Viton
3	Serial No.

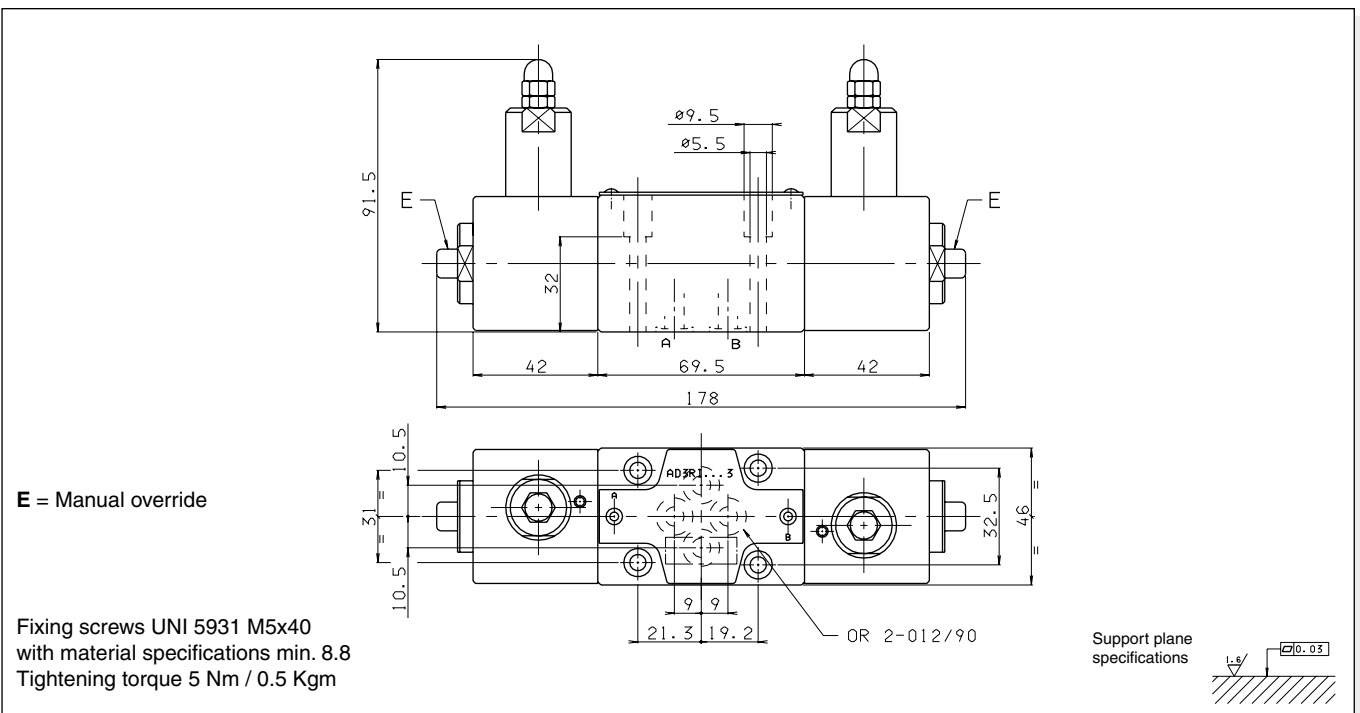
HYDRAULIC SYMBOL



PRESSURE DROPS



Tests carried out with mineral oil at a temperature of 40°C with viscosity of 46 mm²/s.





AD51...

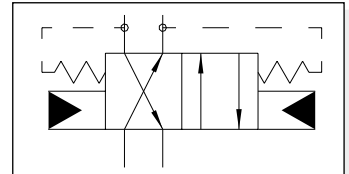
AD51... AUTOMATIC RECIPROCATING VALVES CETOP 5

The operating principle of this type of inverter valve, with interface UNI ISO 4401 - 05 - 04 - 0 - 94 standard (ex CETOP R 35 H 4.2-4-05), is based on the pressure unbalanced created in its interior as a consequence of the fluid flow rate. On starting the system this valve assumes always a preferential position P → B e A → T.

When a pressure is applied to the cylinder which exceeds the system maximum pressure relief valve setting (e.g. end stroke actuator), a hydraulic unbalanced is generated capable of changing over the valve and inverting the cylinder direction of the movement.

Max. operating pressure port P	320 bar
Max. flow	100 l/min
Minimum permitted flow	10 l/min
Fluid viscosity	32 ÷ 60 mm ² /s
Fluid temperature	-20°C ÷ 60°C
Max. contamination level(*) class 10 in accordance with NAS 1638 with filter β ₂₅ ≥ 75	
Positioner activating force (measured with 1 bar on the T line)	190 N
Weight of version without positioner	3,4 Kg
Weight of version with positioner	3,6 Kg

(*) Max contamination level must be respect to obtain the right function of the valve

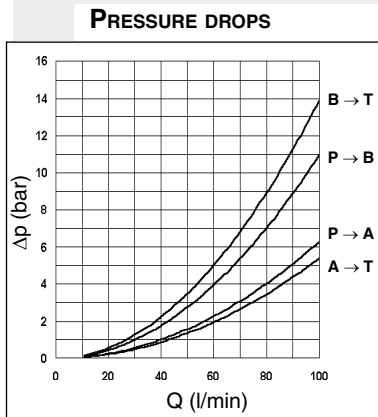


ORDERING CODE

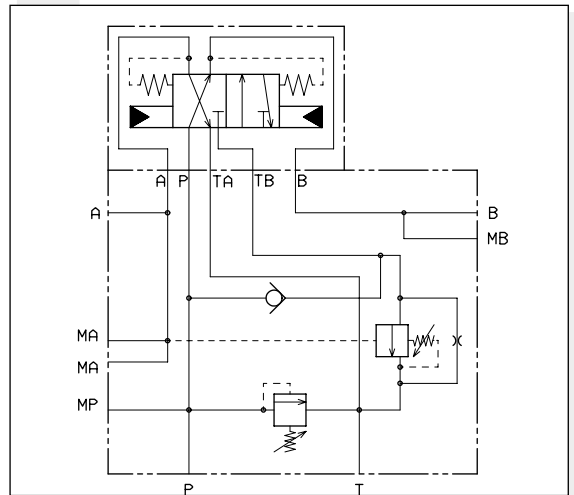
- AD** Directional control
- 5** CETOP 5/NG10
- I** Automatic reciprocating valve at null flow
- * (1)** P = Version with positioner to adjust the pressure relief valve of the system
- **** 00 = No variant
V1 = Viton
2T = Variant for regenerative system
- 1** Serial No.

(1) Omit if not required the positioner

Tests carried out with mineral oil at a temperature of 40°C with viscosity of 46 mm²/s.



AD5IP2T1 FOR REGENERATIVE SYSTEM



Version AD5IP2T1 integrated in a regenerative circuit for compactors with roll on-off mobile system, solution useful for all applications where to connect microswitch of proximity is not possible. For any information about our regenerative manifold please contact our technical department. For special subplate BS5RIA see Cap. X • 8.

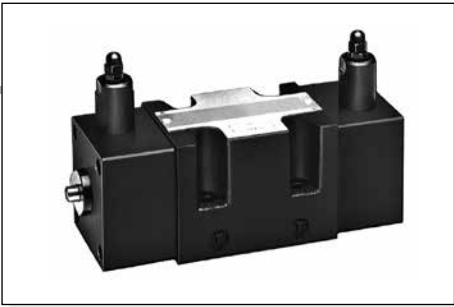
(GSQ TS-014/90 / OR 2-014/90)

GSQ = square section seal

Fixing screws UNI 5931 M6x40 with material specifications min. 8.8
Tightening torque 5 Nm / 0.5 Kgm

Support plane specifications

AD5RI... AUTOMATIC RECIPROCATING VALVES CETOP 5



AD5RI...

This valve type is characterized by a fully hydraulic operation, as it takes advantage of the system pressure rise to cause an automatic and continuous inversion of the utilization. The changeover takes place when the system pressure exceeds the inversion valves calibration pressure, and therefore also in not predetermined position. At the cylinder stroke end, the overall maximum pressure valve should be adjusted on a value 30% higher than the system operating pressure.

Max. operating pressure	320 bar
Max. pressure port T	160 bar
Min. recommended pressure	15 bar
Max. flow	70 l/min
Min. flow	6 l/min
Setting ranges:	Spring 1 15 ÷ 50 bar
	Spring 2 20 ÷ 140 bar
	Spring 3 50 ÷ 320 bar
Fluid viscosity	10 ÷ 60 mm ² /s
Fluid temperature	-20°C ÷ 75°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter β ₂₅ ≥ 75
Weight	5,4 Kg

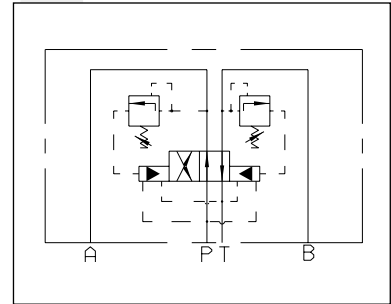
ORDERING CODE

- AD** Directional valve
- 5** CETOP 5/NG10
- RI** Automatic reciprocating valve hydraulically operated automatic reciprocation
- 211** Scheme
- Z** No voltage
- *** Setting ranges:
1 = 15 ÷ 50 bar
2 = 20 ÷ 140 bar
3 = 50 ÷ 320 bar
- **** 00 = No variant
V1 = Viton
- 3** Serial No.

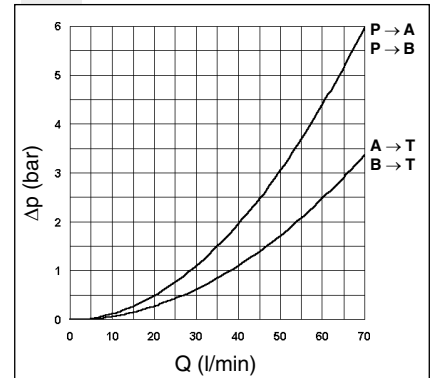
The inverter valves pressure calibration values should be 15% lower than that of the overall maximum pressure valve, and 15% higher than the maximum operating pressure.

Note: to operate the push button emergency, a minimum pressure of 3 bar on the actuator is needed.

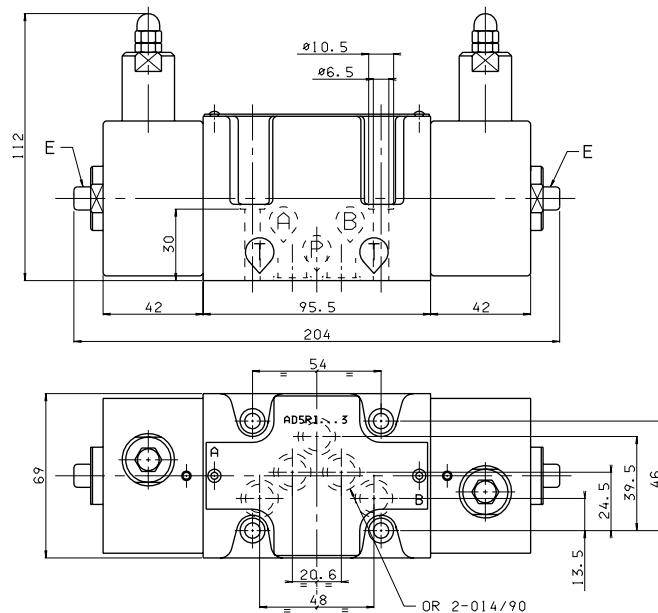
HYDRAULIC SYMBOL



PRESSURE DROPS



Tests carried out with mineral oil a temperature of 40°C with a viscosity of 46 mm²/s.



E = Manual override

Fixing screws UNI 5931 M6x40 with material specifications min. 8.8
Tightening torque 8 Nm / 0.8 Kgm

Support plane specifications

