# AD5I... AUTOMATIC RECIPROCATING VALVES CETOP 5



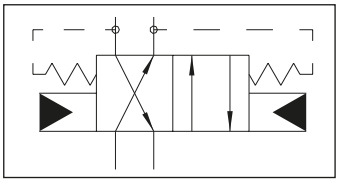
AD5I...

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 mm²/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) | 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



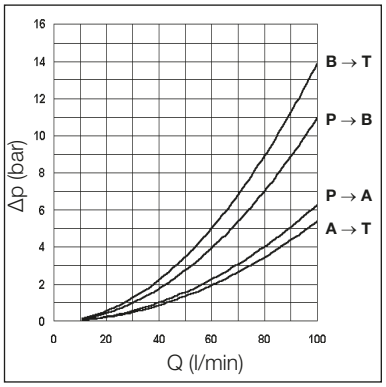
## ORDERING CODE

| | |
|---|---|
| **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<br>**V1** = FKM<br>**2T** = Variant for regenerative system |
| **1** | Serial No. |

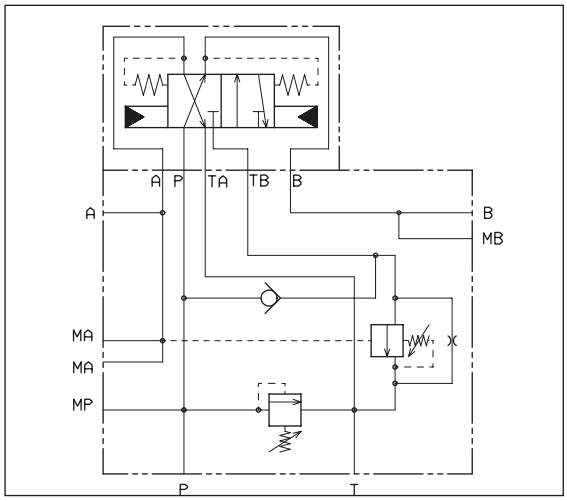
(1) Omit if not required the positioner

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

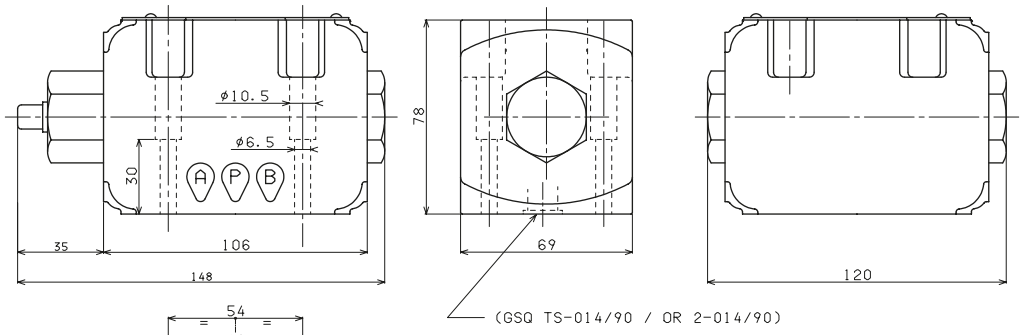
## PRESSURE DROPS

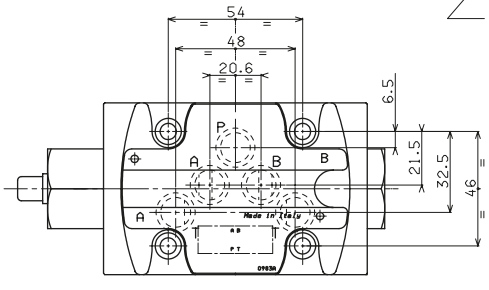



## AD5IP2T1 FOR REGENERATIVE SYSTEM




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 Sect. I 8.

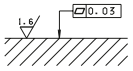


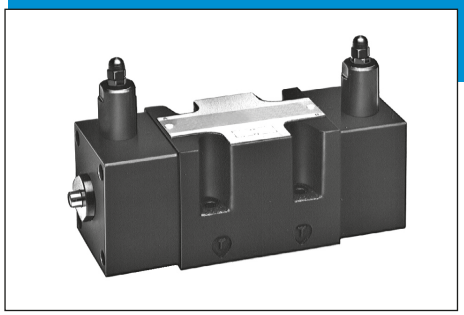

**GSQ** = square section seal

Fixing screws ISO 4762 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.

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.

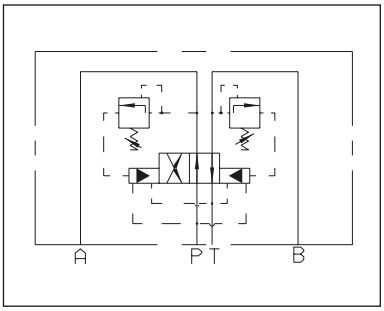
| | | |
|---|---|---|
| Max. operating pressure | | 320 bar |
| Max. pressure port T | | 160 bar |
| Min. recommended pressure | | 15 bar |
| Max. flow | | 70 l/min |
| Min. flow | | 6 l/min |
| Setting ranges: | Spring 1 | 15 ÷ 50 bar |
| | Spring 2 | 20 ÷ 140 bar |
| | Spring 3 | 50 ÷ 320 bar |
| Fluid viscosity | | 10 ÷ 60 mm²/s |
| Fluid temperature | | -20°C ÷ 75°C |
| Max. contamination level | | class 10 in accordance with NAS 1638 with filter $\beta_{25} \geq 75$ |
| Weight | | 5,4 Kg |

A

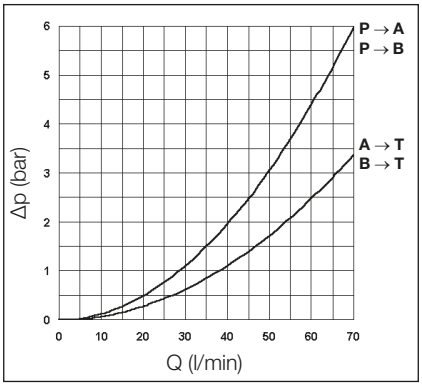
## ORDERING CODE

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

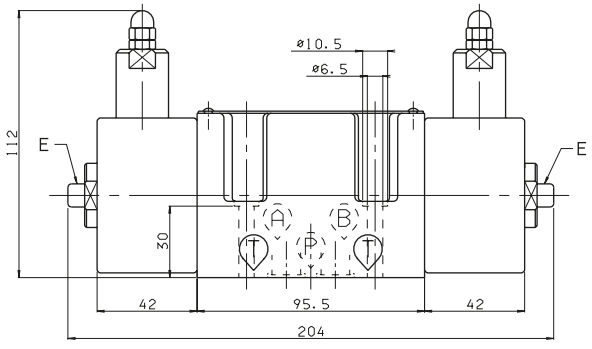
## HYDRAULIC SYMBOL

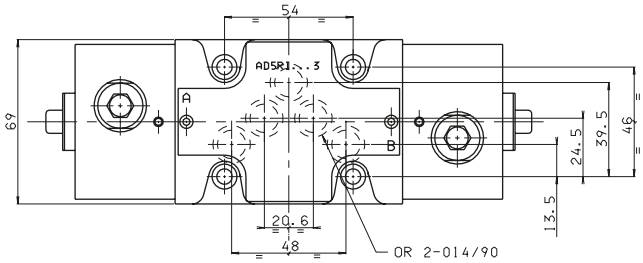



## PRESSURE DROPS




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




**E** = Manual override

Fixing screws ISO 4762 M6x40
with material specifications min. 8.8
Tightening torque 8 Nm / 0.8 Kgm

Support plane specifications

