

## BLADE ANGLE ADJUSTMENT WITH ELECTRIC ACTUATOR

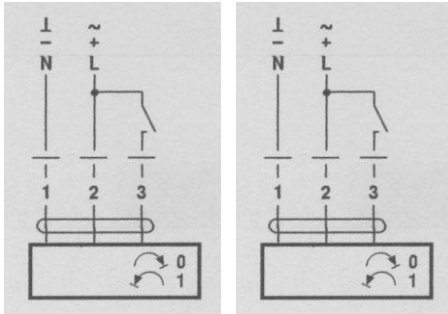


There are two types of actuators where are used for the adjustment of the blades angle: on-off (2 points) or analogue. The on-off actuator allows us, using a switch which gives or interrupts the electric power in the contact No 3, to give to the diffuser blades two different angles. In cooling mode the blades are in side position and all to the same direction (swirl). In heating mode the blades are in vertical position. The analogue actuators allow us, using a 0-10V potentiometer which gives signal in the contact No 3, to adjust the blades angle in any position between two limit positions (cooling (side) – heating (vertical)). In the analogue actuators we use the contact No 5 signal to “read” the position of the electric actuator (position feedback). The actuator installation is possible in the types: GR-AR, GR-AR-A and GR-RR. For example: GR-AR-500-ANALOGUE-24V.

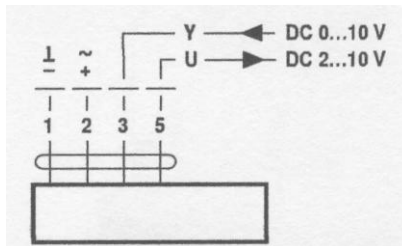
### **For the electric actuators:**

Max. Temperature: 50°C, Max. Relative Humidity: 95%

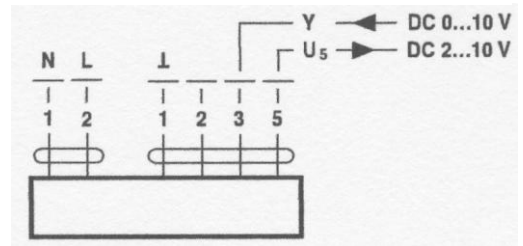
AC 220V ON-OFF AC/DC 24V ON-OFF:



AC/DC 24V ANALOGUE



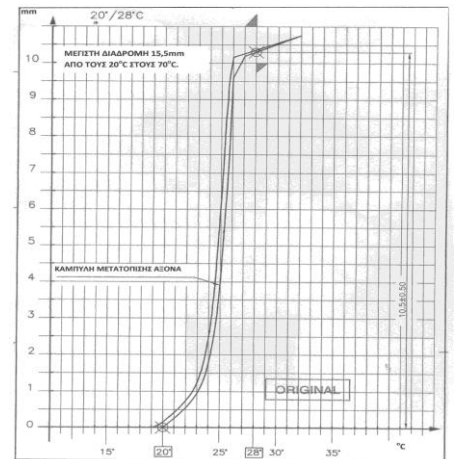
AC 220V ANALOGUE



## AUTOMATIC BLADE ANGLE ADJUSTMENT WITH THERMAL ACTUATOR (GR-...-AUTH)



The automatic adjustment of the blades angle is succeeded with a thermal actuator which according to the supply air temperature moves an axis. This movement is very intensive between 20-28°C, outside this temperature area the movement very small.



Usually the supply air temperature in cooling is below 20°C and in heating is over 28°C. We can use this phenomenon with a proper motion transmission mechanism to adjust the blades angle in the position of cooling or heating. The installation of the automatic blade angle adjustment mechanism is possible in the types GR-AR, GR-AR-A and GR-RR up to size 600. The big advantage in this case is that we install the diffuser like a simple one and we forget it, and that we have not the cost of the electric installation like the diffusers with electric actuator.

For example: GR-AR-A-AUTH-400.