Proportional Room Thermostat

AX526

CE

Model	Description
AX526	Room thermostat with two output proportional 0..10 V-, power supply 24 V~

APPLICATION

AX526 room thermostat is used in heating, thermal process, air-conditioning systems, in civil and industrial plants whenever temperature control is required. Control is carried out by a 0..10 V- proportional control of a motorised valve or of two motorised valves in sequence. Typical applications are: reheating coil control with V.XT/MVT or V.B/MVB56 valves, small A.H.U. - D.P.C, multizone plants, heating/cooling coils with V.XT/MVT or V.B/MVB56 valves in hot/cool sequence.
AX526 thermostat can also control MVH56 motorised valves.

OPERATION

AX526 thermostat is equipped with a knob for set point adjustment. It is possible to fix the maximum and minimum limit of the adjustable point using the device contained in the knob.
The signal is proportional to a 10...0 V- output with reverse action (heating) while a second 0..10 V- output with direct action (cooling). The proportional band of every output is fixed; on the contrary, the dead zone is adjustable between the two outputs. The set point corresponds to 0 V- signal of the first output (heating). In other words, when the set temperature corresponds to the set value, the output 1 signal is 0 V-. Output 2 is fixed at 0 V- and begins increasing when the temperature assumes a value higher than the set-point plus the set dead zone. In case one heating (in winter) and one cooling (in summer) valve are available using an outside switch, the valve can be switched to output 1 for heating or to output 2 for cooling (see electrical wiring).
Remote sensor: it is necessary to use the return air sensor STR73, instead of the sensor inside the thermostat.

MANUFACTURING CHARACTERISTICS

AX526 thermostat is composed by an ivory white ABS housing and a base containing the electronic card and the terminal board. The knob is located on the front part on the right. The output power control is by TRIAC.

TECHNICAL CHARACTERISTICS

AX526 thermostat

Range	5T30 °C
Power supply	24 V~ 50 - 60 Hz
Control	2 outputs 0 .. 10 V-
Action	output 1: reverse output 2: direct
Max load	3 mA (control on every output one MVT or MVB54/56)
Power consumption max.	3(2)A terminal output 6
Proportional band	1.5 K on every output
Dead zone	adjustable 0.5 .. 7.5 K
Sensing element	NTC
Temperature:	
- working	-5T 40 °C
- storage	-25T 65 °C
Mounting	on wall
Protection	IP30
Weight	0,11 Kg

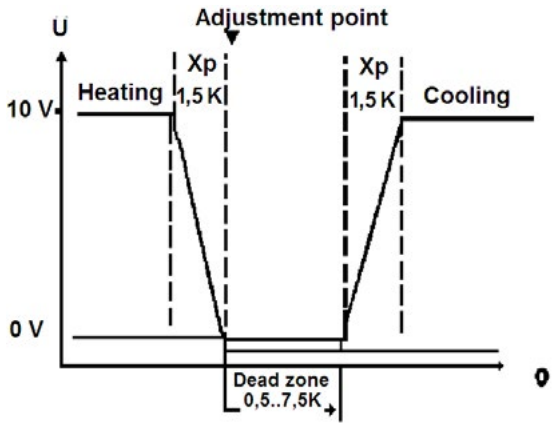
STR73 remote sensor

Bipolar cable 4 m.	Ø 7.9 mm.

Max distance from thermostat 50 m.

The product complies with EMC 89/336 directive according to the following standards:
for emission EN 50081-1 for immunity EN 50082-1

WIRING DIAGRAM



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ELECTRICAL CONNECTIONS

The terminal board is accessible by removing the cover. Perform the wiring according to the following diagrams and in compliance with existing standards. Use cables with 1 mm^2 minimum cross section.
Warning: the cables connecting the actuator must not be routed in elios pipes carrying voltage lines.

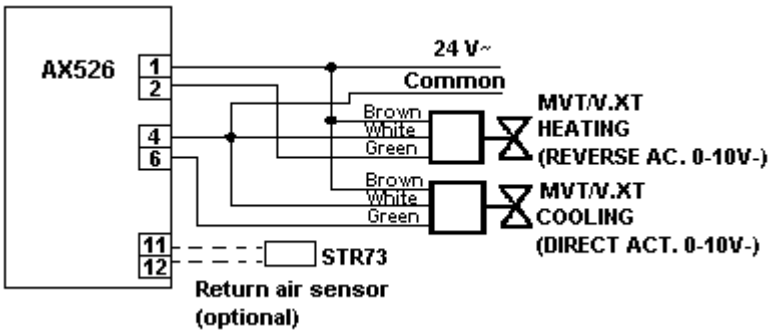
INSTALLATION AND START-UP

Install the device at approximately 1.5 m from floor level in a zone reflecting the room average temperature.
Avoid mounting in air stagnation areas, near doors, windows or heat sources.
Mount the apparel on wall through the two holes on the base (see overall dimensions) accessible by removing the cover, after pulling off the knob and loosening the screw.

Make connections according to the application required; in case of heating/cooling valve sequence, set the dead zone value by positioning the trimmer P3. Place the knob onto the required value.
It is possible to fix the minimum and maximum value of the adjustable set by positioning the cams placed on the back of the knob (the red cam for upper limit, the blue one for the lower).

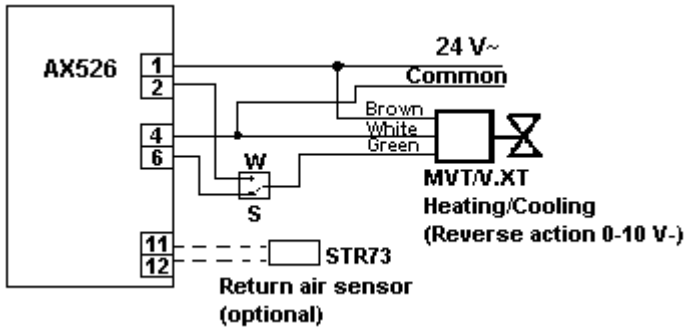
NOTE: When an external sensor is used, it is necessary to cut the inner sensing element (identified on the board as R15) and interrupt the inner jumper (identified on the board as BR1).

WIRING DIAGRAMS



Heating and/or cooling valves
In case of MVB56 motorised valves, connect as follows:

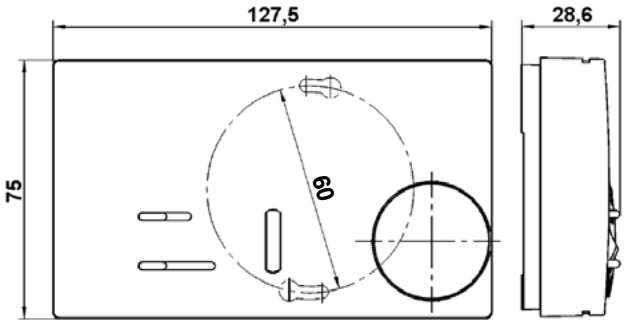
AX526 terminals	MVB52/56 terminals
1	L1
4	L2
2 (Heat.)	Y
6 (Cool.)	Y



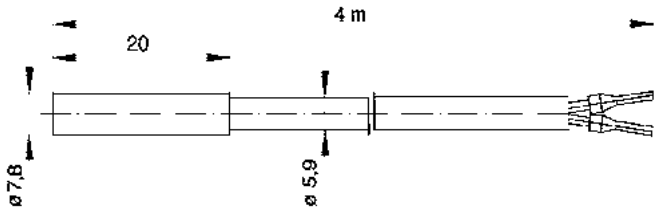
Heating and/or cooling valves with outside summer/ winter changeover
In case of MVB56-motorised valves, connect as follows:

AX526 terminals	MVB52/56 terminals
1	L1
4	L2 (Common)
2 (Heat.)	Y
6 (Cool.)	Y

OVERALL DIMENSIONS (mm)



AX526



STR73

The performances stated in this sheet can be modified without any prior notice due to design improvements