ZONE TEMPERATURE CONTROLLER HLS 33

The HLS 33 is made for individual room and zone control applications. The controller supports 0…10V, 3-point controlled and thermal actuators (selection via jumper S4). Thermal output provides pulse width modulation.

Temperature is detected by the internal NTC 10 sensor of the HLS 33. The space temperature is maintained at the set point by modulating the position of the actuator to meet the cooling (green light) or heating (red light) demand.
The dead zone (no red or green light) between heating and cooling is adjustable (0…3°C).

The function of the HLS 33 (= outputs) can be changed reverse by S1 and S2 coding. The thermal output signal is time proportional and uses 20 second (PWM) pulses.

The cooling mode can be disabled by connecting Z1=Go by using the external switch.

HLS 33-N has built-in display for the room temperature. When any of the settings of the trimmers is adjusted, the display automaticly switches to display the setted value, but returns to normal operation after 2 seconds delay.

Connections:

G	supply 24Vac
Go	0 V
Y1	output 0…10Vdc, cooling
Y2	output 0…10Vdc, heating
Z1	as Z1=Go, cooling disabled
A1	see wiring terminals
Com	24Vac, cooling, common
B1	see wiring terminals
A2	See wiring terminals
Com	24Vac, heating, common
B2	see wiring terminals

Technical data:

Supply	24Vac (20…26V) / 2 VA
Set point adjustment	21 °C, +/- 3 °C, *21 °C
Accuracy	+/- 0,5 °C
Dead zone Dz	0…3 °C, *1,5 °C
P-band Xp	1…8 °C, *4 °C
Integral action time Tn	50…500 s, *300 s
3-point control actuator runtime Mt	30…300 s, *180 s
Outputs Y1 ja Y2	0…10V /10…0V, 2mA
Outputs A1 ja A2	3-point contr., 24Vac 1A thermal motor, 24Vac 1A
Allowed ambient humidity	0...85 % RH (non cond.)
Wiring terminals	1,5 mm²
Housing	ABS-plastics, IP20

* = factory setting

Ordering guide:

Model	Product number	Description
HLS 33	1150090	room temperature controller
HLS 33-N	1150091	room temperature controller with display
HLS 33-EXT	1150092	room temperature controller, terminals for external NTC10 sensor
HLS 33-EXT-N	1150093	room temperature controller with display, terminals for external NTC10 sensor

Products fulfil the requirements of directive 2004/108/EY and are in accordance with the standards EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).