

HLS21 Room and Zone Controller

The HLS 21 is made for individual room and zone control applications. The controller supports thermal actuators for heating and cooling by using 20 s pulse width modulation.

Temperature is detected by the internal (or external) NTC 10 sensor. The space temperature is maintained at the set point by modulating the position of the actuator to meet the cooling (green light) or heating.

HLS 21-N has a display for the room temperature. When any of the settings is adjusted, the display automatically switches to display that value, but returns to normal operation after 2 seconds delay.

The dead zone (no red or green light) between heating and cooling is adjustable (0...3°C). The cooling mode can be disabled by connecting Z1=Go by using the external switch. The middle point of the set point potentiometer can be changed to the desired value by opening and closing the jumper S3. The P-band of the controller can be selected by S2.



Model Types	Model	Description
	HLS21	HLS21 Room And Zone Controller, Heating and Cooling, PWM Actuators, Internal Sensor
	HLS21-N	HLS21-N Room And Zone Controller with Display , Heating and Cooling, PWM Actuators, Internal Sensor
	HLS21-EXT	HLS21-EXT Room And Zone Controller, Heating and Cooling, PWM Actuators, External NTC10 Sensor
	HLS21-N-EXT	HLS21-N-EXT Room And Zone Controller with Display , Heating and Cooling, PWM Actuators, External NTC10 Sensor

Technical Data		
Power supply	24Vac	(20...26V), 2VA
Setpoint	18..24, +/-3°C, *	21°C
Accuracy	+/-0.5°C	
Deadzone	Dz = 0..3°C, *0.2°C	
Proportional Band	Xp = 1°C or 2°C (jumper S2)	
Outputs (A1 and A2)	24Vac 1A	
Wiring Terminals	1.5 mm ²	
Operating Humidity	0..85% rH (non-condensing)	
Protection Class	IP20, ABS Plastic	
CE Approval	Directive 2004/108/EY EN61000-6-3: 2001 (Emissions) EN61000-6-2: 2001 (Immunity)	
Mounting	Wall Mounting	
Overall size	87W x 86H x 32D mm	
	* = factory default	

Connection Terminals	G	24Vac Supply
	G0	0V
	A1	Cooling Output (max 1A)
	A2	Heating Output (max 1A)
	Z1	as Z1 = G0, cooling is disabled

OPERATION DIAGRAM

The diagram below illustrates the controller operation.

