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DATA SHEET

HLS 44-EC

Produal

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ROOM CONTROLLER HLS 44-EC

HLS 44-EC is a versatile room controller for individual room temperature, fan coil unit and VAV control applications. The controller can be connected to any system that supports Modbus RTU protocol by using the RS-485 connection. The bus is galvanically isolated from the controller's other electronics.

Controller supports 0...10 V controlled actuators and/or thermal actuators. The fan coil fan speed can be controlled directly with a 0…10 V output in three stages with selectable voltages if the fan coil is equipped with EC motor. FCRY 3 relay module is needed for controlling the fan speed of 3-step motors.

There is one 0…10 V output reserved for variable air volume control. A demand based and energy saving ventilation can be implemented with a separate carbon dioxide measurement connected to the U1 input.

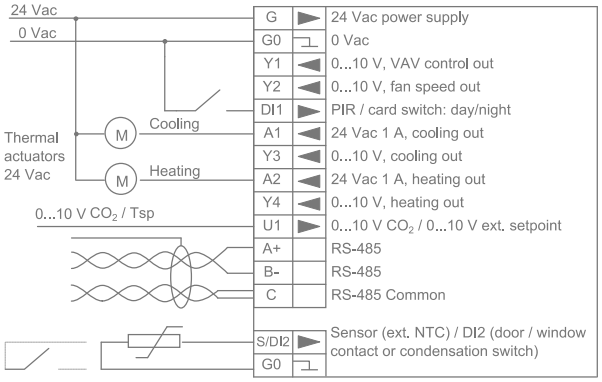
Temperature is detected with an internal or external NTC10 sensor (terminals included). Alternatively, the external temperature sensor terminals can be used for connecting door/window contact or condensation switch.

The controller has day and night operating modes. The operating modes can be controlled by an external card switch, PIR occupancy detector, over Modbus and from menu. The day mode can be activated temporarily for a specific time by touching the "man in house" button. The temporary time can be 1...480 min. After that delay, the controller returns to the night mode if the day mode is not simultaneously activated over the Modbus.

Controller can be used in dry surroundings mounted on the wall surface or on the standard flush mounting boxes (60 mm hole distance).

The controller settings can be changed with the controller buttons.

Wiring:





Technical data:

Supply	24 Vac/dc** (22…28 V), < 1 VA
Set point	
day mode	18…26 °C, *21 °C, ±3 °C
night mode	Frost protection 8…50 °C, *17 °C
Accuracy (measuring)	±0.5 °C
Dead zone	
day mode	0,2…3 °C, *0,2 °C
night mode	0…10 °C, *6,0 °C
Proportional band	1…32 °C, *1 °C
Integration time	50…5000 s, *300 s
Outputs	4 x 0…10 V, 2 mA 2 x triac output 24 Vac 1 A for thermal actuators
Communication	Modbus RTU
Ambient temperature	0…50 °C
Ambient humidity	0...85 % RH (non-condensing)
Wiring terminals	1,5 mm², tilted
Housing	IP20, ABS plastic
Mounting	on the wall or on flush mounting box (60 mm hole distance)
Dimensions (w x h x d)	87 x 86 x 30 mm

* factory settings

** **NOTE:** Only the 0...10 V outputs and Modbus work when using DC supply voltage.

Ordering guide:

Model	Product number	Description
HLS 44-EC	1150257	fan coil and VAV controller; Modbus communication

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

Produal Oy Keltakalliontie 18, 48770 Kotka FINLAND Tel: +358 10 219 9100 / Fax: +358 5 230 9210 info@produal.fi **www.produal.com**

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