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DATA SHEET

HLS 44

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HLS 44 ROOM CONTROLLER

HLS 44 is a versatile room controller for individual room temperature 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 and 0…10 V controlled dampers. The fan coil fan speed can be controlled directly with a 0…10 V output 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.

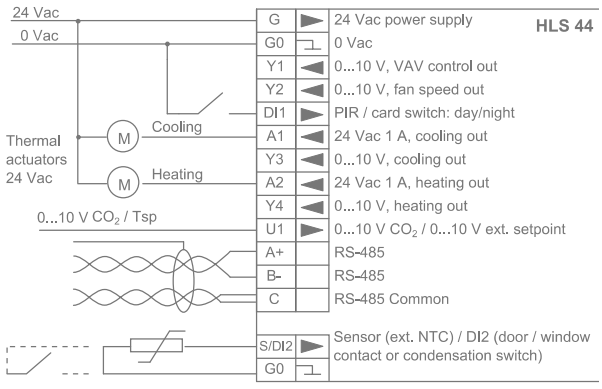
Temperature is detected with an internal or external NTC10 sensor (terminals included). Alternatively the external temperature sensor terminals can be used for connecting door/window contact or condensation switch.

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 supplied with controller buttons or by using the HLS 44-SER commissioning tool which speeds up the commissioning.

Wiring:





Technical data

Supply		24 Vac/dc** (20…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 inaccuracy)		±0.5 °C
Dead zone	Dz	in day mode 0,2…3 °C, *0,2 °C in night mode 0…10 °C, *6,0 °C
Proportional band	Xp	1…32 °C, *1 °C
Integration time	Tn	50…5000 s, *300 s
Outputs		4 x 0…10 V, 2 mA 2 x triac output 24 Vac 1A for thermal actuators
Allowed ambient humidity		0...85 % rH (non-condensing)
Wiring terminals		1,5 mm²
Housing		ABS plastic, IP20
Dimensions (w x h x d)		87 x 86 x 32 mm

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

Ordering guide:

Model	Product number	Description
HLS 44	1150250	Modbus room controller
FCRY 3	1183070	fan coil relay with a 0...10 V input
HLS 44-SER	1150251	commissioning tool for HLS 44

NOTE: The controller is available also with various button configurations.

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).

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