HLS 44-6W ROOM CONTROLLER

HLS 44-6W 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 EC fan coil fan speed can be controlled directly with a 0…10 V output. FCRY 3 relay module is needed for controlling the fan speed of 3-step motors.

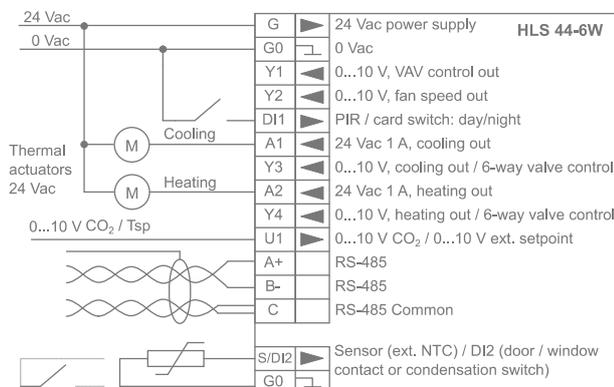One 0…10 V output (Y3 or Y4) can also be configured to control a 6-way valve.

There is one 0…10 V output reserved for variable air volume control (VAV). 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.

The controller settings can be supplied with controller buttons or by using the HLS 44-6W-SER commissioning tool which speeds up the commissioning.

Wiring:

Technical data

Supply	24 Vac/dc (22…28 V), < 2 VA
Set point	18…26 °C, *21 °C, ±3 °C
Temperature measurement accuracy	±0.5 °C
Dead zone (Dz)	
Day mode	0,2…3 °C, *0,2 °C
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
Communication	Modbus RTU
Operating conditions	
Temperature	0...+50 °C
Humidity	0...85 % RH (non cond.)
Wiring terminals	1,5 mm²
Housing	IP20, ABS plastic
Mounting	on the wall surface or on the standard flush mounting box (60 mm hole distance)
Dimensions (w x h x d)	87 x 86 x 32 mm

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

Ordering guide:

Model	Product number	Description
HLS 44-6W	1150300	Modbus room controller
FCRY 3	1183070	fan coil relay with a 0...10 V input
HLS 44-6W-SER	1150301	commissioning tool for HLS 44-6W

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