

## FLOOR HEATING / COOLING CONTROLLER HLS 35

The HLS35 is specifically designed for individual room floor heating / cooling applications. The HLS 35 controller has built-in RS-485 channel for Modbus communication. Controllers can be connected to any supervisory software / system supporting Modbus RTU.

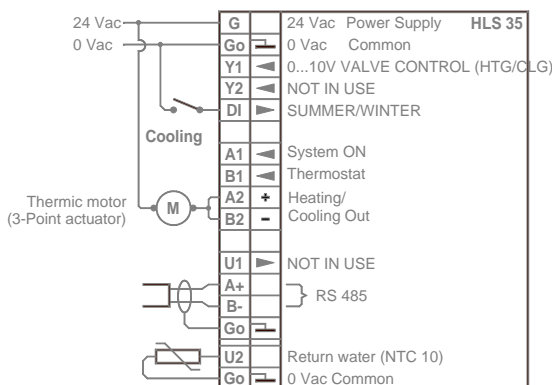
The HLS35 has built-in display and unique touch sensitive buttons for adjusting the user parameters and for configuring the controller.

This controller supports 0...10V actuators, 3-point controlled actuators and thermic (PWM) actuators.

It is possible to connect external floor temperature sensor to the system and limit minimum temperature of the floor to maintain convenient surface temperature of the floor.

The controller has DAY and NIGHT operating modes. When in the NIGHT mode the controller can be overridden to the DAY mode via a hardware input by touching day extension button or via the MODBUS network. Return to NIGHT mode is automatic after pre-set delay.

### Wiring:



### Technical data:

supply		24Vac/dc (20...26V) < 1 VA Note! When using dc supply only 0-10V outputs are operational
inputs		1 x NTC-10 return water temp. 1 x digital (summer / winter)
output Y1		0...10V, 2mA
A2/B2		3-point actuator, 24Vac 1A or thermic actuator 24Vac 1A
selectable by commissioning		day mode: 21°C, *+/- 3°C, *21°C
set point		night mode: 5-20°C, *17°C
accuracy		+/- 0,5 °C
dead zone	Dz	day mode: 0...3 °C, *2 °C
		night mode: 0...10 °C, *6°C
P-band	Xp	1...32 °C, *2 °C
integration time	Tn	50...5000 s, *300 s
3-point act. running time	Mt	30...300 s, *180 s
outputs A1/B1 and		
allowed ambient humidity		0...85 % RH (non-condensive)
wiring terminals		1,5 mm <sup>2</sup>
housing		ABS-plastics, IP20
dimensions w x h x d		87 x 86 x 32 mm
		* = factory setting

### Ordering guide:

Model	Product number	Description
HLS 35	1150130	floor heating controller with MOD-bus communication
TEL NTC 10	1175280	floor temperature 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).

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