

MANUEL D'INSTRUCTION

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ENERGY MANAGEMENT SYSTEM

Communicating thermostat

RS-485 - BACnet - MS/TP

CCTHV-407



Description

The CCTHV-407 from Cristal Controls is a thermostat that operates in standalone mode and also has an RS-485 communication port that supports various protocols like BACnet MS/TP.

In standalone mode, the thermostat operates as a standard electronic thermostat (modulation of a 24 VAC output according to ambient temperature). Different algorithms modified to suit specific needs can be programmed into the CCTHV-407, which makes a thermostat that adapts to all kinds of situations.

Features

- 4 dry contact outputs
- 2 triac outputs (24 VAC)
- 1 analog output (0-10 VDC)
- 2 dry contact inputs
- 1 analog inputs (0-10 VDC)
- 1 remote sensor input (10K)
- 24 VAC low voltage supply
- RS-485 network communication
- Backlighting of LCD display



CCTHV-407 thermostat

Communicating thermostat

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Models

<i>Model number</i>	<i>Description</i>
CCTHV-407-BAC	Thermostat supporting the BACnet MS/TP communication protocol
CCTHV-407-RS485	Thermostat supporting a proprietary communication protocol for integration with a LON interface (Cristal Controls model CCTI-RS485)
CCTHV-407-NC	Thermostat without communication
CCTHV-407-A	Thermostat without display

Technical specifications

Supply

- 18 – 24 VAC
- Consumption : 45mA typical, 80mA max.

Outputs

- 4 X dry contact type, 1A to 24 VAC
- 2 X triac type (500mA max., fuse-limited)
- 1 X analog type 0-10 VDC (5mA max., fuse-limited)

Inputs

- 2 X dry contact type (1 shared common)
- 1 X analog type 0-10 VDC (30K impedance)
- 1 X temperature input for 10K remote sensor
(Dale curve #1, ATP curve Z, BAPI curve #2, Mamac curve #12, Greystone curve #2)

Communicating thermostat

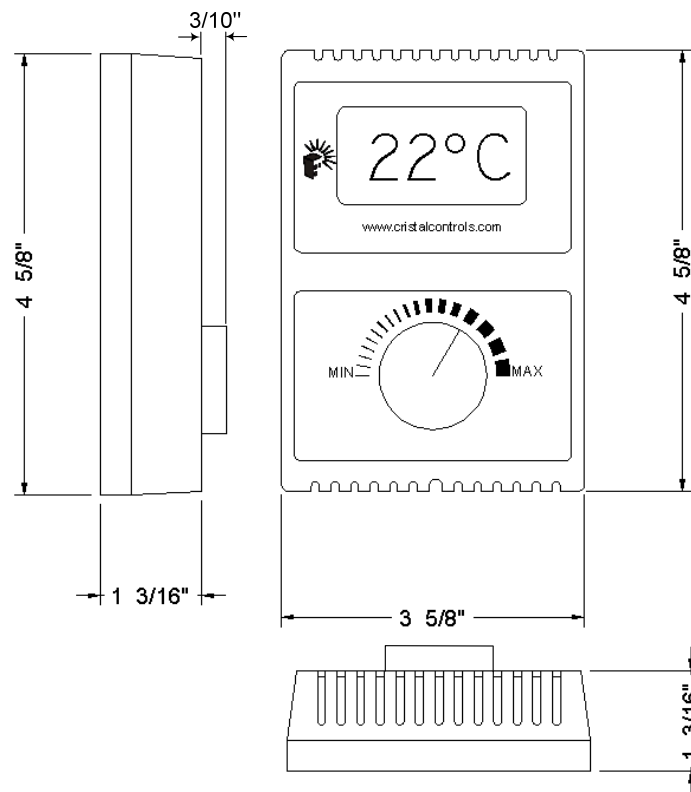
RS-485 - BACnet - MS/TP

CCTHV-407

Environment

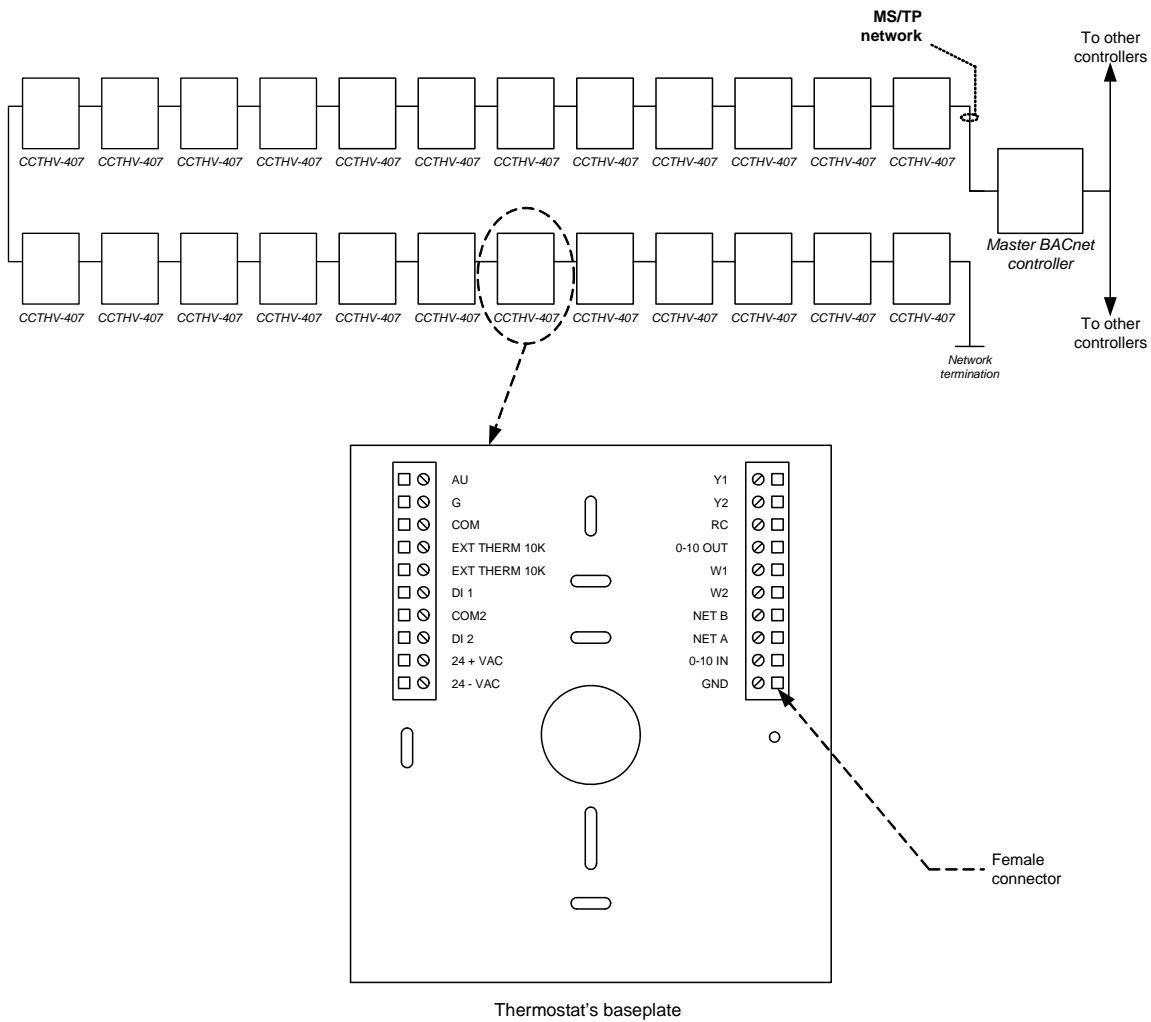
- Operating temperature: 0°C to 40°C (32°F to 104°F)
- 0% to 95% RH noncondensing
- Storing temperature: -40°C to 85°C (-40°F to 185°F)
- Temperature reading's resolution: +/- 0,1°C (+/-0,2°F)
- Temperature setpoint's adjustable range: 15°C to 30°C (59°F to 86°F)

Dimensions



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Typical installation BACnet network (model CCTHV-407-BAC)



NOTE : Typical installation of a CCTHV-407-BAC thermostats' network (maximum of 31 per subnetwork) connected to a master BACnet controller.