Carrier

ClimaVision HyperStat BACnet

All-in-one commercial thermostat and humidistat for superior IAQ management, localized temperature control, and efficiency in buildings with an existing BMS.

– Application-specific BACnet controller that is fully BTL Certified

– Occupancy, temperature, light, humidity, sound, CO_2, VOC and optional particulate matter (configurable for PM2.5 or PM10)

– TFT LCD display with touch slider and input buttons

– (6) Onboard relays

– (3) Analog outputs

– (2) Thermistor inputs

– (2) Analog inputs

ClimaVision HyperStat BACnet (7C-HS-K7W-X)

Give your occupants the power of IAQ management and localized temperature control with the HyperStat, an all-in-one thermostat and humidistat thoughtfully crafted to support healthy, comfortable spaces. Each stat has up to eight on-board sensors for a complete picture of IAQ in your zone and has control capabilities for up to three-stage equipment to fine-tune sequences for optimal building health.

The HyperStat BACnet forgoes its online capabilities to bring the best IAQM and efficiency to buildings with an existing BMS.

OVERVIEW

The HyperStat with BACnet MSTP is a wired (RS-485) thermostat, humidistat, and IAQ sensing station. It comes with an industry-leading seven onboard sensors (occupancy, temperature, humidity, light, sound, CO2, VOC) plus an optional particulate matter to support the WELL Building Standard.

KEY FEATURES

- Pre-loaded equipment profiles allow for interfacing to a wide variety of staged and fully modulating equipment.

- Built-in sequences for occupancy detection mean your HyperStat prioritizes health and comfort when it matters most and saves valuable energy when spaces are empty.

- Data that complies with the WELL Building Standard, right out of the box.

EQUIPMENT CONTROL

Supports staging of cooling, heating or fan (up to 3 stages) or fully modulating:

- Rooftop Units
- Water Source Heat Pumps
- Unit Heaters
- PTAC Units
- 2-Pipe Fan Coil Units
- Induction Units

INCLUDED

(1) HyperStat	7C-HS-K7W-X
(2) Mounting screws
(1) Wire Adapter - RS485	7C-WA-C5X-X

Also Included:
RS485 Wire Adapter (7C-WA-C5X-X) to connect from Molex connector on the HyperStat to a screw terminal that can easily be daisy-chained.

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MECHANICAL

Dimensions	6.5" x 4.5" x 1.15" (165mm x 115mm x 29 mm)
Mounting	(2) screws in drywall
Screen	2.8" 240x320 pixel TFT LCD
Operating Range	32°F to 122°F (0°C to 50°C)

SENSORS

Temperature	Operating range between 32°F to 122°F (0°C to 50°C); typical accuracy of +/- 1°F or 0.2°C
Humidity	Operating range between 20 to 85% noncondensing; Typical accuracy of +/- 2% RH
Dedicated CO_2 Sensor	Range 0-40'000 ppm; Accuracy +/-30ppm over range of 400-10,000ppm and lifetime of 15 years
Light	Ambient light sensor; high-accuracy UV index sensor; matches erythemal curve; < 100 mix resolution
Sound	40-120dB response for 100 Hz to 10Khz
Occupancy	Passive Infra Red (PIR) with detection range of 4m with 30-degree angle
VOC	TVOC: 0-60'000 ppb. Typical Accuracy - 15% of measured value

OPTIONAL SENSOR

PM2.5, PM10 7C-SE-K1X-X	Detection range of 0-1000ug/m3 and accuracy of +/- 10ug/m3 (PM2.5, 0-100 ug/m3) or +/- 25ug/m3 (PM10, 0-100ug/m3)

165mm, 115mm, 113mm

ELECTRICAL

Power	24V AC/DC (+/-15%) with nominal power consumption 1.0W and maximum consumption of 2.5W

COMMUNICATIONS

Wired	4 wire RS-485 interface 3 wire connector for low-power sensor bus

WALL PLATE   6.1" x 4.4" (155mm x 113 mm)

29mm, 113mm, 155mm, 112mm

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I/O

Inputs	(2) 10k type-2 thermistor inputs with 2% accuracy (2) 0-10V analog voltage inputs with 2% detection accuracy
Outputs	(6) 24V dc/1A relays
	(3) 0-10V/4 -20ma (max load of 20mA per channel) analog outputs

INTERFACE PCB