75F® HyperStat™

All-in-one commercial thermostat and humidistat with 8 on-board sensors for superior IAQ management and hyper-localized temperature control.

- Occupancy, temperature, VOC, light, humidity, sound, CO_2 & optional particulate matter

- TFT LCD display with touch slider and user buttons

- (6) Onboard relays

- (3) Analog outputs

- (2) Thermistor inputs

- (2) Analog inputs

75F® HyperStat™

Give your occupants the power of IAQ management and localized temperature control with 75F's 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 two-stage equipment to fine-tune sequences for optimal building health.

The HyperStat works out of the box with the 75F intelligent building solution, including Facilisight. Replacing non-connected thermostats with the HyperStat's cloud-enabled capabilities is as easy as swapping out the wires. The sleek, contemporary design will look right at home in any space.

OVERVIEW

The 75F HyperStat is an all-in-one IAQ sensing station, thermostat and humidistat. It brings HVAC equipment online for secure remote management from any smartphone or connected device. Occupants can make temperature adjustments within predefined limits or adjust fan settings from a touch slider, TFT LCD screen, or buttons.

This device supports the WELL Building standard for healthy buildings and tracks occupancy, temperature, VOC, derived CO_2, humidity, light, sound, and optional particulate matter measurements every 60 seconds for integration to a built-in analytics package.

KEY FEATURES

- 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.

- Industry-leading connectivity allows interfacing to a wide variety of staged and fully modulating equipment.

- Facility directors have real-time access to sensor data and remote control over building parameters through the HyperStat's integration with Facilisight, 75F's building intelligence suite of web and mobile apps.

- 75F's secure and proprietary encrypted 900Mhz mesh network allows for lightweight, reliable communications between devices and the 75F Central Control Unit™, eliminating the need to run wires throughout a space.

ADDITIONAL FEATURES

- Over-the-air firmware updates.
- 3 wire sensor bus for daisy chained sensor communication and 3V power.
- Commissions and communicates with wireless sensors in just minutes with Bluetooth pairing.

EQUIPMENT CONTROL

Up to three stages of cooling/heating/fan or fully modulating:
- Unit Heaters
- Water Source Heat Pumps
- Dual Stage Rooftop Units
- PTAC Units
- 4-Pipe Fan Coil Units
- 2-Pipe Fan Coil Units
- Induction Units

Black and white versions available.

INCLUDED

(1) Black or white HyperStat

(1) 10K type-2 thermistor with 30' cable
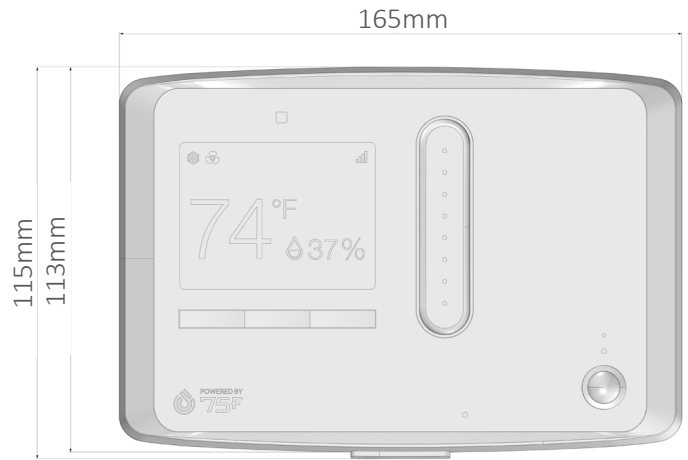
(2) Mounting Screws

75F® HyperStat™

MECHANICAL

Dimensions	165mm x 115mm x 29mm (6.5" x 4.5" x 1.15")
Operating Range	0 to 122˚F (-17 to 50˚C)
Screen	TFT
Mounting	(2) screws in drywall

I/O

Inputs	(2) 10K Type-2 thermistor inputs with 2% accuracy (2) 0-10V analog voltage inputs with 2% detection accuracy

ACCURACY AND RANGE

Temperature	(typical +/- 0.2C)
Humidity	(typical +/- 2% RH)
VOC sensor with derived CO₂	TVOC: 0 – 60'000 ppb. Typical Accuracy- 15% of measured value
Light	High-accuracy UV index sensor; matches erythermal curve; ambient light sensor; <100 mlx resolution
Sound	40-120dB response for 100 Hz to 10Khz
Occupancy	Passive Infra Red (PIR) with detection range of 4m with 15 degree angle.
PM2.5, PM10	Optional. Detection range of 0-1000ug/m3 and accuracy of +/-10ug/m3 (PM2.5, 0-100ug/m3) or +/-25ug/m3 (PM10, 0-100ug/m3)

ELECTRICAL

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

COMMUNICATIONS

Bluetooth	Used during commissioning, triangulation, and communication to wireless sensors
Mesh	IEEE 802.15.4-compliant; used for device communication on mesh network
Wired	4 wire RS-485 interface