

75F[®] HyperSense

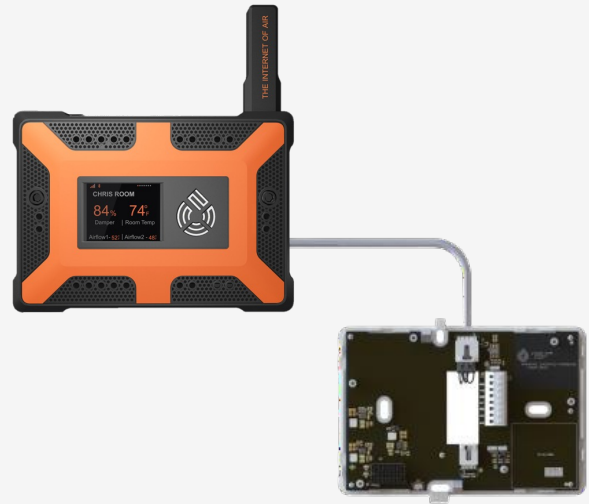
Sophisticated Indoor Air Quality Sensing Station & Occupant Interface



- Occupancy, temperature, light, humidity, sound, CO2 & optional VOC and particulate matter
- TFT LCD display with touch slider and user buttons
- (2) Thermistor inputs
- (2) Analog inputs

75F HyperSense

The HyperSense caters to use cases where a highly capable remote interface is desired for a 75F® Smart Node™ operating in a terminal unit. HyperSense is part of 75F's vertically- integrated suite of intelligent building solutions delivering multi- mode sensing, remote monitoring, and individual zone control for the comfort and productivity of building occupants. The HyperSense works out of the box with the Smart Node.



OVERVIEW

The HyperSense brings building owners eight onboard sensors for indoor air quality management (IAQM) bundled into one device. Paired with the 75F® Smart Node™, the HyperSense's industry-leading sensing turns into granular and sophisticated zone control. The HyperSense delivers various parameter values in a room or zone to the Smart Node, which then carries out advanced control algorithms based on real-time data from the space.

KEY FEATURES

- Provides a large screen with a touch slider and mechanical keys to change values on the Smart Node
- Measures indoor air quality and conveys the information to a Smart Node
- 4 wire interface for RS 485 communication from the Smart Node to the HyperSense

ADDITIONAL FEATURES

- Sensor bus for power and communication with the Smart Node
- Option to connect a PM2.5 sensor

COMPATIBLE APPLICATIONS

- 75F® Dynamic Airflow Balancing™
- 75F® Outside Air Optimization™
- 75F® Smart VAV with Reheat™
- Single-Stage Equipment Controls

INCLUDED

(1) HyperSense

(1) Mounting Adapter plate

(2) Mounting Screws



75F HyperSense

MECHANICAL

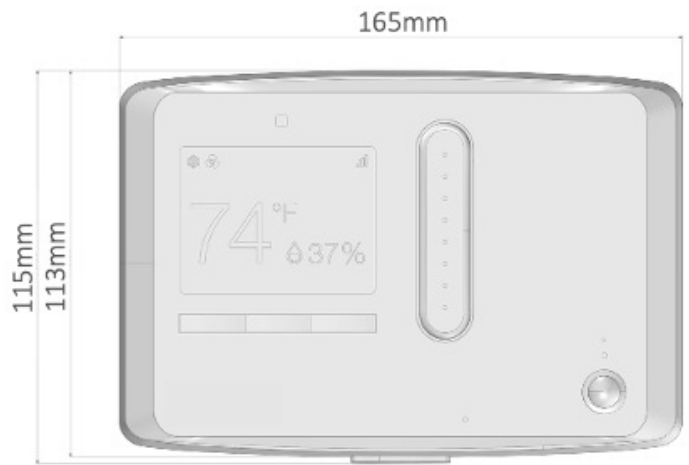
Dimensions	6.5" x 4.5" x 1.15" (165mm x 115mm x 29 mm)
Mounting	(2) screws in drywall
Screen	2.8" 240x320 pixel TFT LCD
Operating Range	32°F to 122°F (0°C to 50°C)

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 CO₂ 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

OPTIONAL SENSORS

PM2.5, PM10	Detection range of 0-1000ug/m3 and accuracy of +/- 10ug/m3 (PM2.5, 0-100 ug/m3) or +/- 25ug/m3 (PM10, 0-100ug/m3)
VOC	TVOC: 0-60'000 ppb. Typical Accuracy - 15% of measured value



ELECTRICAL

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

Bluetooth	BLE4.1; used during commissioning
Mesh	900 MHz IEEE 802.15.4-compliant; used for device communication on mesh network
Wired	4 wire RS-485 interface 3 wire connector for low-power sensor bus

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

