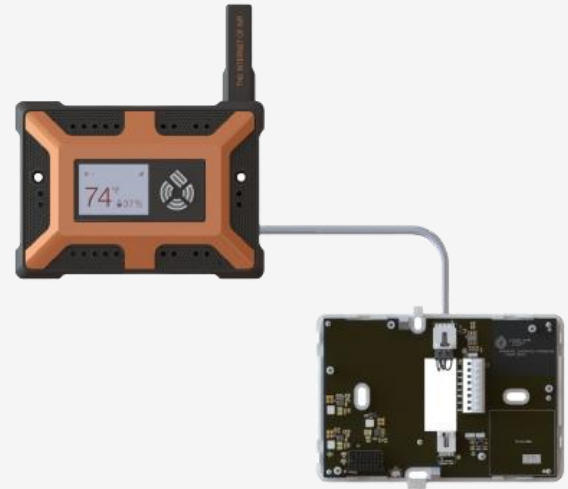# 75F® HyperSense

User interface and IAQ sensor which complements the SmartNode.

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

75F® HyperSense

This product is built as a successor to the SmartSense from 75F. The product caters to use cases where a highly capable remote interface is desired for Smart Nodes operating in the plenum. 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 75F SmartNode. The sleek, contemporary design will look right at home in any space.

OVERVIEW

HyperSense is a trimmed version of HyperStat. It is used with a SmartNode. It is a HyperStat with just the sensing capabilities and without the control capabilities. The SmartNode, a room-level controller with little sensing capabilities, can accommodate only one sensor to sense temperature and humidity parameters.

The HyperSense comes with 8 onboard sensors from its predecessor HyperStat. It can be used with the SmartNode to provide excellent sensing capabilities, along with the control capabilities of the Smart Node. It can sense and deliver various parameter values in a room to the SmartNode, with which the SmartNode could vary the controls the algorithm can provide.

ADDITIONAL FEATURES

- 4-wire sensor bus for power and communication with the SmartNode.
- Option to connect a PM2.5 sensor

Equipment Control

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

KEY FEATURES

- Provides a large screen with a touch slider and mechanical keys to change values on the SmartNode.
- Measures indoor air quality and conveys the information to a SmartNode which
- Works over the 4-wire cable eliminating the requirement to run multi wires from the SmartNode to the HyperSense.

INCLUDED

(1) HyperSense
(1) Mounting Adapter plate
(2) Mounting Screws

75F® HyperStat

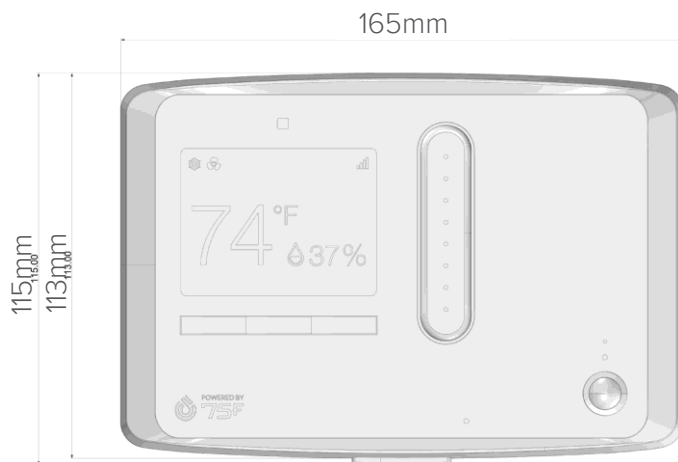## MECHANICAL

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
Outputs	(1) One Wire Interface (1) TFT Screen

ACCURACY AND RANGE

Temperature	(typical +/- 0.2C)
Humidity	(typical +/- 2% RH)
VOC sensor	TVOC: 0 – 60'000 ppb. Typical Accuracy- 15% of the measured value
CO2	0 - 4000 ppm, the accuracy of +/- 30ppm
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.

ELECTRICAL

Power	6.5V DC (+/-15%) with a maximum power consumption of 2.5W

COMMUNICATIONS

Wired	(1) 4 wire RS-485 interface used to power and communicate with the SmartNode