

75F® Multi Sensor

An all-in-one wall sensor supporting indoor air quality, comfort, and efficiency



- Senses for temperature, humidity, occupancy, and CO₂
- Enables out-of-the-box Title 24 compliance when combined with the 75F® Smart Node™

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75F's suite of sensor offerings gives building owners the power of IoT-connected devices for optimal efficiency and comfort in spaces where it matters most. Measure to manage with the 75F Multi Sensor, a high-precision CO₂, occupancy, temperature and humidity sensor that connects with the 75F® Smart Node™ or Stat to deliver data that influences equipment control. This device can be daisy chained with other sensors on the 1-wire bus to provide an extensible sensor network.



OVERVIEW

The 75F® Multi Sensor is an all-in-one sensor providing temperature, humidity, occupancy, and CO₂ to augment the 75F® Smart Node™ for full Title 24 compliance. This small sensor informs air quality and occupancy-based energy sequences for optimal IAQ and efficiency.

The sensor plugs into the standard 3-wire sensor bus that 75F offers on its nodes and stats. The modern, low-profile design appeals to aesthetics and allows the sensor to blend in with office environments.

KEY FEATURES

- Accurate temperature readings (typical +/-0.2C)
- Accurate humidity readings (typical +/- 2% R.H.)
- Accurate occupancy measurement with a measuring angle of 100-degree angle and 10m distance
- CO₂ sensitivity and accuracy meets Title 24. +/- 75 ppm at a 600 and 1000 ppm concentration
- Proprietary 1-wire protocol to communicate with a master device such as an HIA or the Smart Node
- Can be daisy-chained with other sensors on the 1-wire bus to provide extensible sensor network

ADDITIONAL FEATURES

- 3-wire interface for power and communication
- Sleek design, low-impact aesthetics
- Factory pre-calibrated
- Easily mounted
- Up to 4 devices can be connected on the Bus

COMPATIBLE APPLICATIONS

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



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MECHANICAL

Dimensions	60mm in diameter and 21mm thick
Mounting	Wall Mount
Operating Temperature	Operating Environment: 0°F – 122°F

SENSORS

Temperature	Operating range between 0 to 125°C; typical accuracy of +/- 0.2C
Humidity	Sensing range between 0 to 100%RH; Typical accuracy of +/- 2% RH
CO2	+/- 75 ppm at a 600 and 1000 ppm concentration when measured at sea level and 25°C
Occupancy	Senses targets within 4m distance and 100 deg angle.

ELECTRICAL

Power	3.3VDC (+/-10%)
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COMMUNICATIONS

Wired	3 wire interface for power and communication; proprietary 1 wire protocol to communicate with a master device. Up to 4 sensors can be connected on the bus.
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