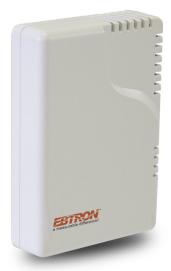


Wall-mounted RS-485 Combination Sensor with CO<sub>2</sub>, Temperature and Relative Humidity Capability

# Series 100, 200 & 300 IAQ-Ny00-W OVERVIEW







■ Up to 3 Sensors in One Package
 ■ Telaire NDIR CO₂ Sensor
 ■ Planar Capacitive Polymer RH Sensor
 ■ Integral Bandgap PTAT Temp. Sensor
 ■ Accurate Measurement
 ■ Reliable Design
 ■ RS-485 BACnet/Modbus Connection
 ■ BTL Listed
 ■ Attractive Wall-mount Enclosure

1-year Warranty

The IAQSENS family of wall mounted devices simplifies wiring and installation by providing up to three sensors over a single RS-485 connection. The device is available as a stand-alone  $CO_2$  sensor, dual output RH/Temperature sensor or a combination of all three.

# **Typical Applications**

- ◆ Room CO₂, Relative Humidity and Temperature Monitoring
- CO<sub>2</sub> Demand Control Ventilation (DCV)
- CO₂/Airflow\* Population Estimation DCV
- \* When an Airflow Monitoring Device is Provided

#### **Benefits**

- Reset Outdoor Airflow Rates
- Save Energy
- ♦ Satisfy LEED Requirements
- Combine with an Airflow Measuring Device for ASHRAE 62.1 and 90.1 Compliant DCV

# Product Highlights

- Self-calibrating ABC Logic Circuitry for CO<sub>2</sub>
   Measurement
- Microprocessor-based
- Watchdog Circuit Protection
- Time-tested Network
   Firmware
- Simple DIP Switch Network Configuration



# SPECIFICATIONS: IAQ-Ny00-W

#### General

#### **Sensor Configurations**

CO<sub>2</sub> only - IAQ-N100-W

RH and Temperature only - IAQ-N200-W CO<sub>2</sub>, RH and Temperature - IAQ-N300-W

#### **Listings and Compliance**

**BACnet International:** BTL Listed

FCC: This device complies with Part 15 of the FCC rules

RoHS: This device is RoHS2 compliant Environmental Limits (Recommended) Temperature: 32 to 122 °F [0 to 50 °C]

## Sensors

#### CO<sub>2</sub> Sensor

Technology: Telaire 6613 Non Dispersive Infrared (NDIR)

Range: 0 to 2,000 ppm

Humidity: 5 to 95%

Accuracy:

400 to 1,250 ppm ±30 ppm or 3% of reading, whichever is greater

1,250 to 2,000 ppm ±30 ppm

Temperature Dependence: 0.36% FS/°F [0.2% FS/°C] Stability: <2% of FS over life of sensor (15 year typical)

Calibration Interval: Not required

Response Time: <2 minutes for 90% step change typical

**Temperature Sensor** 

**Technology:** Integral Bandgap PTAT **Range:** 32 to 122 °F [0 to 50 °C]

Accuracy: ±1.08 °F [0.6 °C] @77 °F [25 °C]

Resolution: 0.36 °F [0.2 °C]
Relative Humidity Sensor

Technology: Planar Capacitive Polymer

Range: 0 to 100% RH

Accuracy: ±3% <20% RH ±2% 20% to 80% RH ±3% >80% RH Resolution: 0.4% RH

### **Integral Transmitter**

Power Requirement: 24 VAC (22.8 to 26.4 under load) @1.5V-A Printed Circuit Boards: Electroless nickel immersion gold (ENIG) plated

User Interface: DIP switch B.A.S. Connectivity Options

IAQ-N100, IAQ-N200, IAQ-N300 Transmitters: One field selectable (BACnet MS/TP or Modbus RTU) and non-isolated RS-485 network connection (provide individual 24 VAC transformers at each IAQ-

Ny00 for applications requiring isolated RS-485) **Supported Baud Rates:** 9.6, 19.2, 38.4 and 76.8 kbaud

System Status Alarm

Type: Sensor diagnostic system trouble indication

Visual Indication: Yes, LED indication

**Network Indication:** Yes

#### Enclosure

**Dimensions:** 4.56H x 3.25W x 1.09D in. [115.8 x 82.6 x 27.7 mm]