EBTRON®
a measurable difference!

IAQSENS

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

Wall-mounted RS-485 Combination Sensor with CO_2, Temperature and Relative Humidity Capability

- Up to 3 Sensors in One Package
- Telaire NDIR CO_2 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 CO_2, Relative Humidity and Temperature Monitoring
- CO_2 Demand Control Ventilation (DCV)
- CO_2/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_2 Measurement
- Microprocessor-based
- Watchdog Circuit Protection
- Time-tested Network Firmware
- Simple DIP Switch Network Configuration

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IAQ-Ny00-W_Overview_r8d

General

Sensor Configurations
CO_2 only - IAQ-N100-W
RH and Temperature only - IAQ-N200-W
CO_2, 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 ºF [0 to 50 °C]
Humidity: 5 to 95%

Sensors

CO_2 Sensor
Technology: Telaire 6613 Non Dispersive Infrared (NDIR)
Range: 0 to 2,000 ppm
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 ºF [0 to 50 °C]
Accuracy: ±1.08 ºF [0.6 °C] @77 ºF [25 °C]
Resolution: 0.36 ºF [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]