TELAIRE®

Telaire® T7000 Series

Handheld Indoor Air Quality (IAQ) Monitors

Applications

- Identify areas with low or substandard ventilation.
- Identify hidden energy savings in over ventilated spaces.
- Determine if ventilation is a factor in air quality complaints.
- Locate the presence of combustion fumes from vehicles and appliances.
- Use as a reference to calibrate wall mounted CO_2 sensors.

Features

- Patented dual beam, Absorption Infrared™ gas sensor ensures long term stability and durability.• Record temperature, CO_2, RH and graph recorded data with supplied software (Model 7001D).
- Record temperature, CO_2, RH and graph recorded data with supplied software (Model 7001D)
- Large, easy-to-read display. Temperature displayed in °F or °C. CO_2 displayed in ppm. Easily adjusted for altitude changes.
- Fast, simple calibration using external port and display. Calibrate with ambient air or bottled gas.
- Calibrate, set elevation, change °F or °C using on-board controls
- Flip out stand for desktop monitoring.
- Voltage output via RJ45 connector provides easy interface to most data loggers.
- Plug in AC power adaptor.
- Operates for up to 80 hours on four AA alkaline batteries (not included).
- Calculates and displays real-time ventilation rates in CFM or Liters/minute per person based on differential CO_2 levels outside and inside the building..

Amphenol

Advanced Sensors

Telaire T7001

Equipped with Telaire's patented dual beam Absorption Infrared™ technology, the Telaire T7001 is an easy-to-use CO_2/temperature monitor designed for use in residential or commercial applications. With the ability to display CO_2 readings and calculate air ventilation rates in cfm/person, the monitor is an ideal tool for: identifying energy saving opportunities in over-ventilated spaces, determining if air quality complaints are due to insufficient ventilation, or locating the presence of combustion fumes generated from vehicles and appliances. It comes with a power adapter.

Telaire T7001i

The T7001i monitor combines the standard Telaire T7001 CO_2/temperature monitor with an international adapter kit..

Telaire T7000SK

The Telaire 7T000SK combines the Telaire T7001 with a technical reference library (CD), graphing software and Ventulator™ energy analysis program. The Ventulator calculates potential energy savings and provides a detailed report to support your control strategy. The VG Graphing software is a "real-time" graphing software that records and graphs CO_2 data directly to your computer.

Telaire T7001D

The T7001D combines the Telaire T7001 and Hobo data logger to provide you with everything you need to record and graph CO_2, temperature, and relative humidity.

T7000 Series Specifications

Method
Dual beam, Absorption Infrared

Sample Method
Diffusion or flow through (50 to 100 ml/min)

Display-LCD
Independent CO_2 and temperature readings. Calculates and displays ventilation rates.

General

Operating Conditions
- 32°F to 122°F (0°C to 50°C)
- 0 to 95% RH, non-condensing

Storage Temperatures
-4°F to 140°F (-20°C tp 60°C)

Certification
CE
FCC Class 15 Part B

Warranty
18 months parts and labor

Performance—CO_2 Channel

Measurement Range
- 0 to 10,000 ppm display
- 0 to 4000 ppm voltage output

Display Resolution
±1 ppm

Accuracy
0 – 2000 ppm: ±50 ppm or 5% of reading, whichever is greater
2000 – 10000 ppm: +/- 10% of the reading

Repeatability
±20 ppm or 2% of the reading whichever is greater

Temperature Dependence
0 – 2000 ppm: ±0.1% of reading per °C or ±2 ppm per °C, whichever is greater, referenced at 25°C.
2000 – 10000 ppm: ±0.2% of reading per °C referenced at 25°C

Pressure Dependence
0.13% of reading per mmHg (corrected via user input for elevation)

Response Time
<60 seconds for 90% of step change

Warm-Up Time
<60 seconds at 72°F (22°C)

Calibration Interval
12 months, offset adjustment using single gas at 0 to 1000 ppm CO_2. Full factory calibration available.

Performance—Temperature Channel

Temperature Range
- Voltage output: 32°F to 104°F (0°C to 40°C)
- Display: 32°F to 122°F (0°C to 50°C)

Display Resolution
0.1°F (0.1°C)

Display Options
°F, °C

Accuracy
±2°F (±1°C)

Response Time
20 to 30 minutes (case must equilibrate with environment)

Calibration Interval
12 months, offset adjustment using temperature standard at 50°F to 86°F (10°C to 30°C). Full factory calibration available.

Output—Analog

CO_2
0 to 4 VDC, 1 mV/ppm (4000 ppm maximum)

Temperature
0 to 4 VDC linear, 32°F to 104°F (0°C to 40°C)

Output Impedance
100 ohms

Digital Output
RS232 for use with Telaire CO_2View graphing software

Wiring Connection
One RJ45 to connector dual analog output plus digital output

Power Supply

Battery Type
Four AA batteries of any type (not included)

Battery Operation
80 hours (alkaline)

External
6 VDC from external AC/DC adapter (included)

Power Requirements
100 mA peak, 20 mA average from 6V

CFM/Person Ventilation Rate Measurement

The Telaire T7000 Series will calculate the outside air ventilation rate to a space based on the inside/outside CO_2 differential readings. Outside readings can be established by measuring outside levels and holding the "enter" button on the sensor for five seconds. The outside reading can also be manually set using the on-board keypad and display (default 400 ppm).

Accurate interpretation of the ventilation rate indicator requires a measuring two to three hours after occupancy has stabilized in a space or at a peak in daily CO_2 concentrations. In other conditions the indicator may tend to overestimate ventilation rates.

The ventilation rate display assumes a people activity level in the measured space similar to an office type environment (1.2 MET). If higher levels of activity are present, the indicator may tend to underestimate ventilation levels.

T7000 Series Accessories/ Ordering Information

T2070 Cable
Voltage output cable, includes two pigtail leads for connecting to third party devices.

T2075NG Calibration Kit
Comes with regulator, flowmeter and tubing. Gas is not included.

T2077 Hobo Data Logger Kit (included in T7001D)
Comes with small size Hobo data logger, software and all necessary connection cables for recording and graphing measurements. The data logger includes internal RH and temperature sensors and can record their outputs along with T7001 CO_2 measurements. It can be attached to the back of T7001.

T2080 CO_2View
Graphing software for logging CO_2 concentrations directly to PC.

T62933 International Power Supply Kit

T62285 RJ45 to DB9 cable

Factory Calibration
Call the factory for a RMA number.

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