

CARBON DIOXIDE (CO₂) MONITOR

Features

- Dual beam, Absorption Infrared gas sensor technology
- Built-in CO₂ and temperature sensors
- Large LCD displays CO₂ level, temperature and ventilation rates
- Operates on batteries or plug in, AC power adapter (included)
- Stand-alone or hand-held use
- Monitor and record CO₂ and temperature data with MadgeTech data recorders

Applications

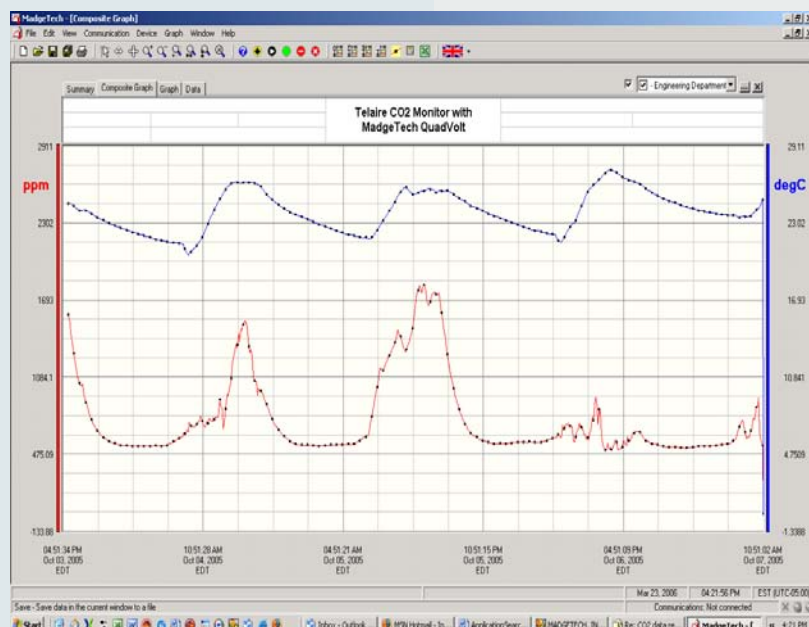
- IAQ (Indoor Air Quality) studies
- Verify proper air ventilation. Poor air quality complaint monitoring.
- HVAC system testing and servicing
- Identify energy savings in over-ventilated spaces
- Sick building studies (hospitals, schools, public buildings, etc.)
- Agricultural, plant growth studies
- Building occupancy monitoring

Designed for residential and commercial use, the Telaire 7001, CO₂ monitor is an essential tool for detecting carbon dioxide and temperature levels in a wide variety of air quality studies and applications. When used with the MadgeTech family of Volt Recorders*, CO₂ levels (ppm) and temperature data can be recorded with time and date stamps for graphing and detailed analysis.

This data can be used to test for low or substandard ventilation in buildings, offices, hospitals, schools, etc. Energy saving opportunities can be identified in over-ventilated spaces. The presence of combustion fumes from vehicles and equipment may also be detected. Poor air quality and ventilation complaints can be verified. Air handlers and exchangers can be diagnosed for service or repairs. Sick buildings may be monitored and improvements made in ventilation systems, from data recorded in baseline and post-retrofit studies. Performance of heating and air conditioning systems can be analyzed. Building occupancy information can also be obtained from CO₂ level data. CO₂ and temperature data are also useful in agricultural, plant growth and greenhouse design applications and studies.

* Volt101 and Volt110 are single channel recorders. To record BOTH CO₂ and temperature data, a QuadVolt or OctVolt, multi-channel data recorder is needed.

Data Sheets [Volt101](#), [Volt110](#), [QuadVolt](#) and [OctVolt](#)



QuadVolt Recorder with the Telaire Monitor

The MadgeTech software shows CO₂ (ppm) and temperature data in an easy to use graph.

The Telaire 7001, CO₂ monitor will operate with the MadgeTech *Volt101, Volt110, QuadVolt and OctVolt data recorders. These models feature screw terminal input plugs. They can be easily connected to the CO₂ monitor's analog voltage output jack, using an available interface cable (CABLE2070). CO₂ and temperature data can be displayed and/or recorded for graphing and analysis with MadgeTech software. Data recorders are optional and sold separately.

For more information about MadgeTech Volt Recorders or to demo our software, visit us online at: www.madgetech.com

CARBON DIOXIDE (CO₂) MONITOR SPECIFICATIONS*

CO ₂ Channel		Temperature Channel	
Measurement Range:	0-10,000 ppm (LCD display) 0-4,000 ppm (voltage output)	Measurement Range:	32 to 122°F (0 to 50°C) (LCD display) 32 to 104°F (0 to 40°C) (analog output)
Display Resolution:	+/- 1 ppm	Display Resolution:	0.1°F (0.1°C)
Accuracy:	+/- 50 ppm or +/- 5% of reading up to 5,000 ppm (above 5,000 ppm not specified)	Accuracy:	+/- 2°F (+/- 1°C)
Response Time:	<60 seconds for 90% step change	Response Time:	20-30 minutes (case must equilibrate with environment)
Operating Environment:	32 to 122°F (0 to 50°C) 0-95% RH, non-condensing	Operating Environment:	32 to 122°F (0 to 50°C) 0-95% RH, non-condensing
Dependencies:	Temperature: +/-0.1% of reading per °C or +/- 2 ppm per °C, whichever is greater. Pressure: 0.13% of reading per mm Hg (Corrected via user input for elevation)	Display Options:	°F, °C, or Off. Set with panel button.
Calibration Interval:	12 months, offset adjustment using single gas at 0-10,000 ppm CO ₂ . Please, contact MadgeTech for calibration details.	Calibration Interval:	12 months, offset adjustment using temperature standard at 50 to 86°F (10 to 30°C). Please, contact MadgeTech for calibration details.
Warm-Up Time:	<60 seconds at 22°C		

Outputs		Power Supply/ General information	
Analog CO₂:	0 to 4 volts DC, 1mV/ppm (4,000 ppm max)	Battery Type:	Four, AA batteries (not included). Battery life expectancy (80 hours with alkaline batteries)
Analog Temperature:	0 to 4 volts DC, linear, 32 to 104°F (0 to 40°C)	External Power:	6 volts DC from external AC/DC power adapter (included)
Output Impedance:	100 Ohms	Power Requirements:	100mA Peak, 20mA average from 6 volts
Wiring Connection:	One RJ-45, female connector, dual analog output (CO ₂ and Temperature)	Operating Conditions:	32 to 122°F (0 to 50°C) 0-95% RH, non-condensing
Display	LCD display provides CO ₂ levels (ppm), temperature (°F or °C), ventilation rates, elevation and calibration settings, low battery indication (in US Standard or Metric units)	Storage Temperatures:	-4 to 140°F (-20 to 60°C)
		Certifications:	FCC Class 15 Part B, CE
		Sensor/ Sampling Method:	Dual Beam Absorption Infrared, Diffusion or flow through (50 to 100 ml/min)

*Specifications are subject to change without notice. Specific warranty and remedy limitations apply. Call 1-603-456-2011 or go to www.madgetech.com for details.

ORDERING INFORMATION

Model	Description	Price (U.S.)
7001-CO₂ MONITOR	Telaire, 7001 CO ₂ monitor (includes AC power adapter, manual)	\$550.00
CABLE2070	Voltage output cable to connect CO ₂ monitor to MadgeTech data recorders	\$ 50.00

MadgeTech Volt Recorders and Software sold separately.
Volt101, Volt110, QuadVolt, OctVolt
For more information contact sales@madgetech.com
or visit our web site for more details and pricing. Quantity discounts available

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Pulse/Event/State
Humidity	Low Level Current
Pressure	Low Level Voltage
pH	RF Transmitters
Level	Intrinsically Safe
Shock	Spectral Vibration

