

TELAIRE® 6703 CO₂ Module

NDIR CO₂ Module
designed for residential
applications in a
compact package



The Telaire[®] T6703 CO₂ Series is ideal for applications where CO₂ levels need to be measured to make assessment of indoor air quality.

All units are factory calibrated to measure CO₂ concentration levels up to 5000 ppm.

Features

- An affordable gas sensing solution for OEMs.
- Eliminates the need for calibration in most applications with Telaire's patented ABC Logic™ software. Lifetime calibration warranty.
- A reliable sensor design based on 20 years of Engineering and manufacturing expertise.
- Flexible CO₂ sensor platform designed to interact with other microprocessor devices.
- Small compact design allowing simple product integration.

Telaire 6703 series CO₂ Module Specifications

Method

Non Dispersive Infrared (NDIR), gold plated optics, diffusion sampling (with Telaire's Patented ABC Logic Self Calibrated Algorithm)

Measurement Range ⁽²⁾

0 to 5000 ppm

Dimensions

1.18 in X 0.61 in X 0.34 in
(30 mm X 15.6 mm X 8.6 mm)

Accuracy ⁽¹⁾

400-5000 ppm ± 75 ppm or 10% of reading, whichever is greater

Temperature Dependence

5 ppm per °C or 0.5% of the reading per °C, whichever is greater

Stability

< 2% of FS over life of sensor (15 years typical)

Pressure Dependence

0.13% of reading per mm Hg

Calibration Interval

Not required

Response Time

< 3 minutes for 90% step change typical

Signal Update

Every 5 seconds

Warm Up Time

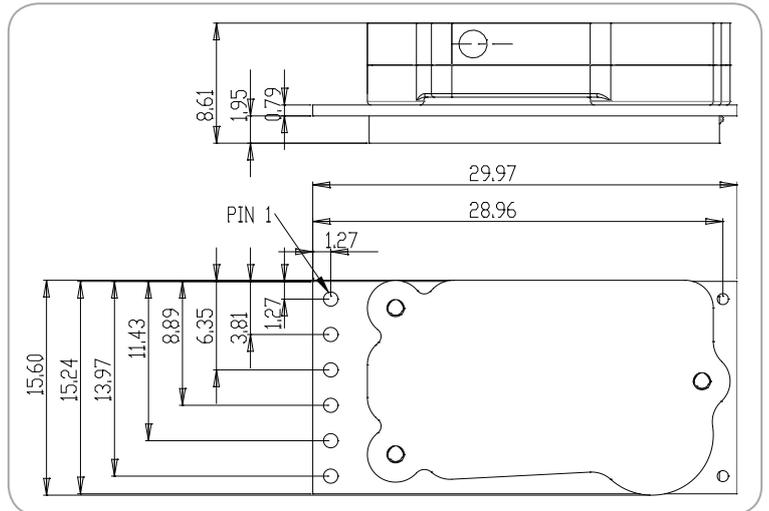
- < 2 minutes (operational)
- 10 minutes (maximum accuracy)

Operating Conditions

- 50°F to 122°F (10°C to 50°C)
- 0 to 95% RH, non-condensing

Storage Conditions

-22°F to 158°F (-30°C to 70°C)



All dimensions in millimeters (mm)

Output

Digital ⁽³⁾

I²C slave up to 100 kHz

UART @ 19200 Baud w/Modbus support

PWM Output Mode

Two options, cycle period 1002 ms (~1Hz) or 40 us (25kHz)

Power Supply Requirements ⁽⁴⁾

- 4.5-5.5 VDC
- Peak 200mA (155mA typical)
- Average 25mA (20mA typical)

Interface Connections

Designed for male header with 0.1 in (2.54mm) spacing Header not included.

Notes:

- (1) Tolerance based on span gas of ±2%, which adds to the uncertainty, tested at Standard Ambient Temperature and Pressure (SATP).
- (2) Subjecting sensors to environments less than 400 ppm may affect accuracy due to ABC Logic algorithm.
- (3) Please call for detailed product specifications.
- (4) Based on nominal 5VDC input voltage. For best performance, DC supply should be a regulated, low noise power source.

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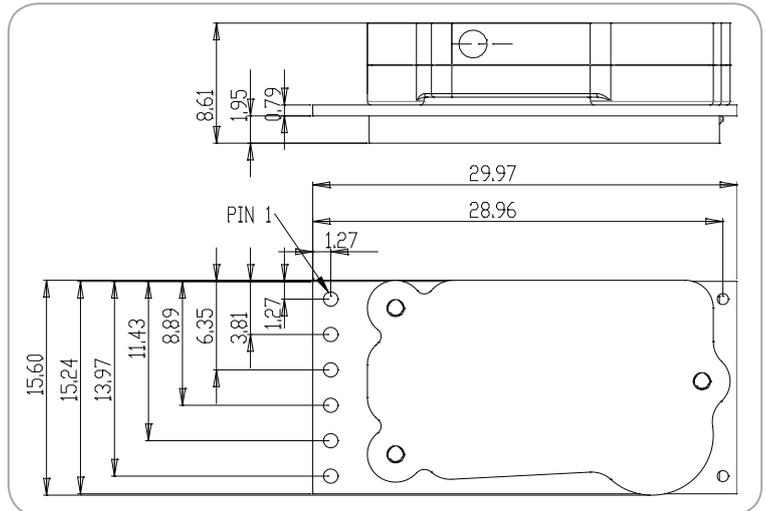
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