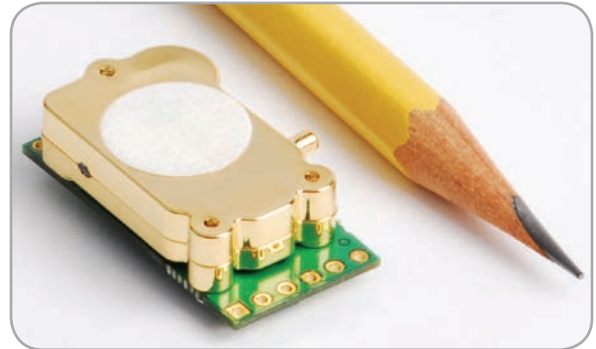




Telaire T6723-8K5 CO₂ Alarm Module

NDIR CO₂ Module
Designed for Heater
Applications Requiring
High Limit Controls



Signals

Telaire T6723-8K5 CO₂ Alarm Modules are individually factory-calibrated to trigger Alarm Signal at 8500ppm CO₂. In addition, the T6723-8k5 provides Ventilation Warning Signal triggered at 7500ppm CO₂ and Low Battery Warning Signal (for applications using batteries).

Compliant with the latest NF128 LNE test protocol

Features

- Designed specifically for the Original Equipment Manufacturer (OEM)
- Reliable design based on 25 years of infrared sensor manufacturing
- ROHS and WEEE compliant for European applications
- Protected by US Patents US6526801, US6255653, US6410918, and US6588250. (Patents Pending)

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Telaire T6723-8k5 CO₂ Alarm Specifications

General Performance

Operating Temperature Range: -20°C to +55°C

Storage Temperature Range: -20°C to +70°C

Operating Humidity Range: 0 – 99%

Sensor Life

- Designed for 5 years of heater use with no calibration required

Self-Diagnostics

- Detector and lamp failures

“Forced Alarm” Test Pad

- Simulates warning and alarm shutdown through the sensor

Compliance

LNE

- CO₂ detector is compliant with the latest NF128 related specific LNE test protocol Cemat 633V (required by French decree number 2004-945)

Acceptance of Electronics Assemblies

- IPC-A-610D, Class 2

ESD Immunity (installed in OEM equipment)

- Designed to meet EN61000-4-2, level 2

HR Radiation Immunity

- Designed to meet EN61000-4-3

Magnetic Immunity

- Designed to meet EN61000-4-8

Radiated Emissions

- Designed to meet EN55022, Class B

ROHS

- Per 2011/65/EU

WEEE

- Per 2012/19/EU

Electrical

Power Input

- 4.3VDC – 7.0VDC

Average Current @ 6.0 VDC with 100k pull up resistors

- 2 minute sampling rate < 2.0mA per hour average, typical
- 15 second sample rate < 8.0mA per hour average, typical

Peak Current

- < 100mA ± 10%

Low Voltage Shut-down

- 4.3 VDC ± 5%

Connector (5-pin)

- Pin 1 → Ventilate Warning
- Pin 2 → Low Battery Warning
- Pin 3 → V+
- Pin 4 → V-
- Pin 5 → Alarm Output

Connector Type

- JST B5B-EH-A(LF)

Reverse Polarity Protection

- None

Forced Alarm

- Connect Pin 6 to ground at startup to force alarm output

Calibration

- Pin 6 connected with 1MΩ to ground initiates zero calibration.

Telaire T6723-8k5 CO₂ Alarm Specifications

Output Description

Alarm Output

- 8500ppm \pm 1000ppm
- Normally low

Low Battery Warning

- 5.3 VDC \pm 5%
- Normally high

Ventilate Warning

- 0.1% CO₂ below alarm level with 0.1% CO₂ hysteresis
- Normally high

Measurement Accuracy

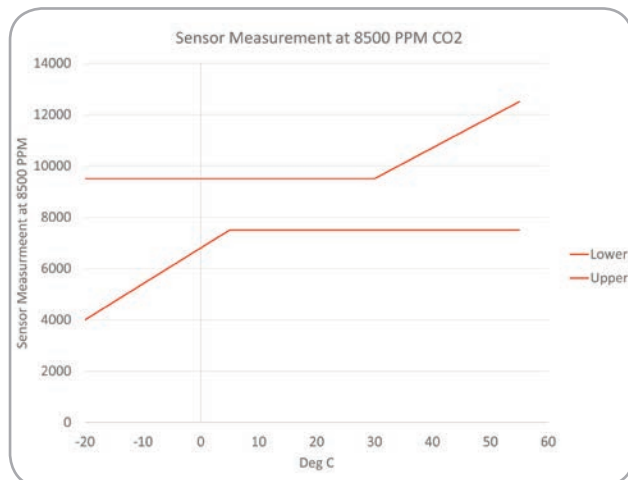


Figure 2 – CO₂ PPM Alarm vs temperature

Alarm Setpoint

- 0.85% CO₂ in air \pm 0.1% CO₂ by volume from 5 to 30°C

Alarm Hysteresis

- 0.1% CO₂ by volume

Sampling Interval:

- 2 minutes \pm 10% for < 6500 ppm
- 15 seconds \pm 10% for > 6500 ppm

Alarm Conditions:

- 3 consecutive samples above 0.85% CO₂
- 3 consecutive samples below 4.3V input
- 3 consecutive samples for self-diagnostic failure

Operating Temperature Accuracy

- See Figure 2 for expected sensor performance in controlled audit test conditions

Telaire T6723-8k5 CO₂ Alarm Specifications

Handling and Installation

The T6723-8k5 CO₂ Alarm Modules are infrared gas sensors on a printed circuit board and should be treated carefully. Precautions should be taken to observe specified limits and prevent damage from electrostatic discharge or rough handling. Please refer to ANSI/ESD S20. 20-1999 for more information on preventing ESD damage and IPC 610 Rev D for more information on proper electronic assembly practices.

Safety

Before installing, handling, using, or servicing this product, please consult the data sheet. The product shall be used only within power supply and electrical input and output limits as specified by the datasheet. Improper use of the product may result in product damage and property loss and/or personal injury. In use of the product, the customer has sole responsibility for designing and implementing a solution which will ensure safe operation (including review of appropriate reliability or required redundancy, mitigation of failure modes, and/or meeting appropriate standards). The customer is responsible for review of any special conditions for use including, but not limited to, environmental conditions, electrical supply, residual risk, etc). The sensor's performance and reliability will be negatively affected in environments that contain aggressive agents such as ammonia, chlorine, and ozone. Telaire makes no warranty, representation or guarantee regarding the suitability of this product for any particular application, including safety critical applications. Nor does Telaire assume any liability arising out of the application or use in any product or circuit. Telaire specifically disclaims all liability without limitation consequential or incidental damages. No statutory or fitness for particular purpose shall be implied.

Interface Diagram

(use of pull up resistors required)

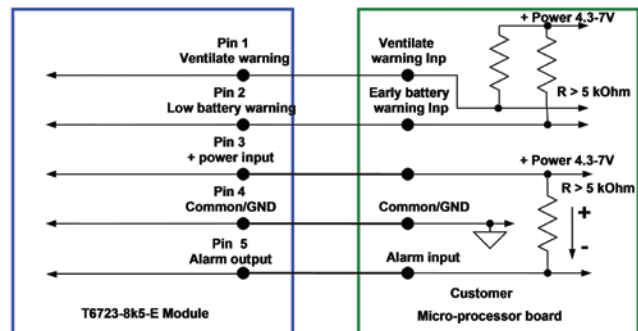


Figure 4 – Interface Diagram

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www.telaire.com

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