Carbon Dioxide Monitor
MODEL 3411-2
Part # 030756-2

FEATURES

- **No Moving Parts**
- **Low Current Draw**
- **Cost Effective, High Quality**
- **Maintenance Free Continuous Operation**
- **Non-Dispersive InfraRed Technology**
- **Digital output for high resolution, stability & accuracy**
- **NDIR digital signal processing and temperature compensation**
- **Ease of troubleshooting and diagnostics using the optional RS-232 Test Board**
- **SPI (Serial Peripheral Interface) is the "Standard Protocol" by Motorola**
- **Multiple sensor connection to the same SPI data bus (reduced cost of multi-gas sensing in the same application)**

MODEL 3411-2

AREAS OF APPLICATION

Health & Safety:

- Wineries
- Breweries
- Bakeries
- Refineries
- Submarines
- Loading Docks
- Livestock
- Underground Garages
- Warehouse/Storage
- Ocean Submersibles
- Tunnels
- Broiler Houses
- Animal Farms
- Slaughter Houses

Process Control:

- Laboratories
- Food Processing
- Fumigation
- Food Storage

DESCRIPTION

The low cost Model 3411 Area Safety CO_2 Monitor uses Non-Dispersive InfraRed (NDIR) digital processing technology with temperature compensation for a high resolution, stable and accurate output signal.

A rugged NEMA 4X enclosure is standard with a gas cell that uses “Smart Sensor” technology for easy field service/replacement.

Two model ranges of 0-2% and 0-20% cover the full spectrum for comprehensive area safety CO_2 monitoring.

Enjoy simple calibration through the push of a button. Troubleshooting and diagnostics are available through the optional RS232 port.

Compact size and low 12VDC to 24VDC or 18VAC to 30VAC power provide for safe easy connection. Standard output signal is 16 bit serial digital.

SPECIFICATIONS

Method:	**NDIR:**
Gas:	Carbon Dioxide CO2
Sensor Type:	Diffusion Head
Signal Processing Type:	Digital
Measuring Range:	0 to 2%
Accuracy at 25°C:	±0.1% of reading from 0 to less than 5%, and ±5% of reading from 5%-20%
Repeatability:	±1% CO2 of full scale
Output Signals:	
Digital Output:	16 Bit Digital, SPI
Zero Drift at Constant Temperature:	Less than 0.1% of full scale per degree C in any 30 second period
Zero Drift Due to Ambient Temperature:	Less than 0.1% per degree C change from the calibration temperature
Relative Humidity:	0-95% RH non-condensing
Input Power:	11 VDC to 16 VDC @ 0.25 Amp max. Typical 0.135 amp.
Power Consumption:	Less than 3 watts
Operating Temperature Range:	0ºC* to 50ºC (32ºF to 122ºF)
Storage Temperature Range:	-20ºC to 70ºC (-4ºF to 158ºF)
Weight:	2.63 lbs. (1.19Kg)

Options:

Input Power:	18-30 VAC
LED Display:	3½ digit in % CO2
Analog Output:	0-1 V or 0-5 V and 4-20 mA (0-10V optional)
Calibration Switches:	Zero, Star Set(Span Value), Span and Range Set
RS-232 Test Board:	For troubleshooting and diagnostics

Mechanics:

External Dimensions: **NEMA 4X clearance 5.5” (H) x 7.5” (W) x 5” (D)**
(139.7mm (H) x 190.5mm (W) x 127mm (D))

Mounting Drawing: