



# MODEL 1000-CO<sub>2</sub>

## CARBON DIOXIDE ANALYZER

**ISO 9001: 2008**  
Certified

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### DESCRIPTION

Detcon Model 1000-CO<sub>2</sub> Analyzer is designed to provide continuous, accurate, real-time measurement of carbon dioxide gas concentrations

in a wide variety of process gas streams. Available ranges are from 0-0.3% up to 0-100%. All CO<sub>2</sub> analyzers in the Model 1000 Series employ Detcon's sub-miniature NDIR optical sensor element and feature a microprocessor-based signal-conditioning transmitter with local digital display, fault supervision, calibration mode indicator, 4-20mA, alarm relays and an RS-485 serial port. The instrument package is rated (explosion proof) Class 1, Division 1, Groups B, C, D.



### FEATURES

- ▷ Continuous Measurement with Superior Uptime
- ▷ Ranges from 0-0.3% up to 0-100%
- ▷ Readily Field Replaceable Sensors
- ▷ Simple Operation and Field Calibration
- ▷ Standard Outputs: 4-20 mA, RS-485, 3 Relays
- ▷ Class I, Div. 1 Groups B, C, D rated

### APPLICATIONS

- ▷ Gas Well Testing & Analysis
- ▷ Gas Well Production Sites
- ▷ Gas Treatment Plants
- ▷ Gas Transmission Custody Transfer Compliance

### SPECIFICATIONS

#### Sensor Type

Non-dispersive Infrared

#### Measurement Range - High Range

0-0.3/1.0/3.0/5.0%  
10%/25%/50%/100%

#### Accuracy/Repeatability

The greater of: ±10% of reading or  
±2.5% of range

#### Response/Clearing Time

T50 <30 seconds  
T80 <60 seconds

#### Operating Temperature Range

-40°F to +167°F; -40°C to +75°C

#### Operating Pressure Requirements

Inlet: 10 ±2 psig  
Vent: Atmospheric ±1 psig

#### Outputs

Linear 4-20 mA DC  
RS-485 Modbus™  
3 Relays (alarm 1, alarm 2, & fault)  
Contacts rated 5 amps

#### Power Input

117/220 VAC  
18-36 VDC

#### Electrical Classification

Explosion proof  
Class 1, Division 1, Groups B, C, D

#### Warranty

Sensor: 5 years prorated\*  
Transmitter: 2 year

#### Analyzer Weight

80 lbs.

#### Shipping Weight

140 lbs

#### Dimensions

29" x 29" x 8"

\*2 years = free of charge, 3rd year = 25% of replacement cost, 4th year = 50% of replacement cost, 5th year = 75% of replacement cost

### ORDERING INFORMATION

Gas cylinder and gas cylinder regulator sold separately.

Detcon requires that an application data sheet be completed and submitted to the engineering department prior to quotation and or order confirmation. This process assures that each customer's use of Detcon Model Series 1000 analyzers is reviewed and approached with confidence that the product will perform as specified.

The analyzer application data sheet can be accessed on line at [www.detcon.com](http://www.detcon.com) or you may request a copy by contacting [sales@detcon.com](mailto:sales@detcon.com) via email.

**www.detcon.com**