

600 D

SERIES

NDIR/CO₂



Infrared CO₂ Analyzer

APPLICATIONS

- Stack Gases (CEM)
- Combustion Efficiency
- Turbine/Generator Feedback Control
- Process Chemical Gas Analysis
- Personnel Safety
- Fuel Cell Analysis
- Vehicle Emissions

OPTIONS

- 19 Inch Rack Mount Slides
- Internal Sample Pump

FEATURES

- Ranges from 1,000 ppm up to 30% Full Scale CO₂
- Micro-flow Detector With High Sensitivity, Minimal Interference, and Long Life
- Single Beam Optics Provide Excellent Stability With No Optical or Mechanical Adjustments
- Auto Calibration
- Fast Response Time
- Temperature and Pressure Compensation
- Comprehensive Diagnostics
- Output Options: Voltage, Current, RS-232, TCP/IP, MODBUS
- Low Cost of Acquisition/Maintenance



600 SERIES NDIR ANALYZER

NDIR CO₂

DESCRIPTION

The 600 D Series analyzer is designed specifically for applications in which CO₂ needs to be accurately measured from low ppm to high percent levels.

METHOD OF OPERATION—NDIR

The analyzer uses a technique based on the infrared absorption characteristics of gases to measure concentration. A single beam of infrared energy is modulated and passed through a sample cell containing the gas to be measured. The beam emerges attenuated by the amount of energy absorbed by the gas in the sample.

Changes in the concentration of the gas results in changes in the intensity of the beam. The remaining energy in the beam is passed serially through two cavities of an infrared detector containing the gas of interest and a mass flow sensor. Changes in the intensity of the beam change the pressure differential between the cavities and consequently the balance of the electrical bridge in the detector circuit.

Electronic processing of the imbalance of the signal is used to generate an electrical output signal proportional to the concentration of gas measured.

SPECIFICATIONS

- Available Ranges: 0 - 1,000 up to 0 - 30% Full Scale
- Single Range CO₂ Channel
- Repeatability: +/- 1% Full Scale
- Noise: Less Than 1% Full Scale
- Zero Drift: 1% Full Scale in 24 Hours at Constant Temperature
- Span Drift: 1% Full Scale in 24 Hours at Constant Temperature
- Response Time (T 90): 10 Seconds at 1 Liter per Minute
- Sample Flow Rate: 0.5 to 1.5 Liters per Minute
- Ambient Temperature Range: 5 to 40 Degrees C
- Sample Conditions: Up to 90% Relative Humidity (Non Condensing)
- Warm-Up Time: Approximately 2 Hours

