



Continuous Particulate Emission Monitor

Model CEM 2604

BASE MODEL CAPABILITIES:

- ◆ Continuous outputs via 4-20mA, RS-232, RS-422 and 0-100% linear bar graph
- ◆ Direct sensing technique for repeatable signals and high sensitivity
- ◆ Front panel operations/keypad
- ◆ Automatic self-checks of electronics and sensor
- ◆ Simple, rugged sensor has no lenses, no wearable parts, and no alignment problems
- ◆ Selectable data averaging and two alarm set points
- ◆ Password protection

OPTIONS INCLUDE:

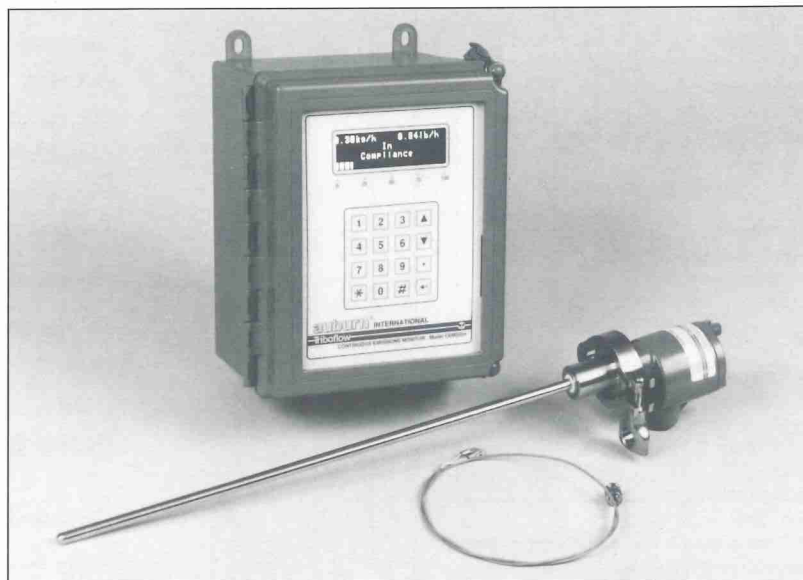
AccuFaST - Flexible software to correlate Triboflow with stack tests for user selected outputs (lb/h, mg/m³, etc.)

PC Communications - For remote displaying, graphing, printing of real time and long term data

Memory - 90 days of 1 hr and 160 hrs of 1 min (block averages)

Daily Quality Assurance Report - A printed summary of all events and settings

Ultra High Sensitivity - To detect as low as .00005 g/dscf (.01 mg/m³), ten times the normal Triboflow sensitivity



The state-of-the-art, microprocessor based CEM 2604, Continuous Particulate Emission Monitor, uses the unique technology of triboelectricity (frictional electrification), pioneered by Auburn International. **Triboflow*** has proven to be a reliable, maintenance-free method for monitoring all types of dust collection systems.

Dust particles collide with the probe, generating a small triboelectric signal.

The CEM 2604 monitors this signal and, when correlated with a stack test, will provide a quantitative read-out (lb/h, mg/m³, etc.) of particulate emissions.

The system is uniquely suited for the environmental standards on emission monitoring. The system is equally effective for many maintenance purposes such as detecting broken bags and locating filter failures.

ELECTRONICS

Outputs:

- One 4-20mA Non-isolated (Isolated - Opt)
- Two SPDT Relay Contacts
- Four line digital readout including a 0-100% bar graph
- (2) RS-232 and (1) RS-422

Temperature Range:

- 0 to 120°F (-18 to 49°C) (Operating)
- 30 to 130°F (-34 to 54°C) (Storage)

Humidity Range:

- 0-95% Relative Non-Condensing

Power:

- 100 to 240 VAC (47-63 Hz)

Enclosure:

- NEMA 4x with window

Display:

- 1/4 inch (6 mm) x 20 character four line vacuum fluorescent

Key Pad:

- 16 button membrane

SENSOR

Temperature range:

- 40 to 300°F (-40 to 149°C) - Teflon Ins. (Std)
- 40 to 450°F (-40 to 204°C) - Extended High Performance Insulation (Opt)
- 40 to 1000°F (-40 to 538°C) - Ceramic Insulation (Opt)

Pressure Range:

- 30 psi (2 bar) (Std)
- Up to 5,000 psi (345 bar) (Opt)

Probe:

- 316 Stainless Steel
- Tungsten Carbide or Inconel (Opt)
- Other (Special)

Other Parts:

- 303 Stainless Steel (Std)
- Insertion Length: 3, 6, 12, 18, 30, 36 inch (2.5, 7.6, 15.2, 30.5, 45.7, 76.2, 91.4 cm) (Opt)
- Other (Special)

Hazardous Rating:

- Designed Intrinsically safe for Class I, II, III Division 1 & 2, Groups A, B, C, D, E, F, G

Enclosure:

- NEMA 4x

CONNECTIONS

Process/Sensor: 1/2 inch NPT Male fitting or Quick Release Clamp (Std)

Sensor/Electronics: Special Triboelectric Triax Cable 300 ft (91 m) max.

Cable Temperature Range:

- 60 to 400°F (-51 to 204°C) max.
- Cable above 400°F - Contact Factory

INSTALLATION

Weld a half coupling or the quick release ferrule over a hole in the side of the pipe or duct. Screw in or clamp the sensor in place. (Please refer to the manual for details.)

*Covered by one or more of the following patents: 4,063,153, 4,074,184, 4,291,273, 4,288,741, 4,631,482, 4,619,145, 4,714,890, 4,904,944, 4,774,453, 5,054,325, 5,095,275. Product also covered by patents in countries other than the United States.