

Accurate. Reliable. Cost Effective.

Emissions Monitoring for Compliance & Process Improvement



Model 6000 Single Pass Non-compliance Opacity Monitor

Technology

The Model 6000, Single Pass non-compliance Opacity Monitor, is an optical instrument designed to measure visible opacity (0 – 100%) in exhaust gas for duct, stack or flue combustion applications.

It utilizes a single pass transmission measurement technique in which a light beam emitted from a transmitter passes across the stack to a receiver that measures the intensity of the received light from its green LED source. Attenuation of the light in the presence of high particulate loading or smoke is measured and presented as opacity (0 – 100%).

Available with or without the Controller, the Model 6000 can be used as a stand-alone configuration using a laptop/pc and the Utility Software supplied.

With no moving parts, reliability is excellent and maintenance reduced to occasional cleaning of the TX and RX lenses. A latched head design provides easy access to lenses. An air purged body (blower recommended) provides the ability to further lengthen service intervals.

Ideal for applications including duct and tunnel monitoring as well as open space perimeter monitoring.



Features and Benefits

- In situ measurement directly in exhaust gas flow
- Modulated green LED source for long lifetime and immunity to ambient light
- Compact, small packaging with built in air purge capability
- Modbus communication
- Low cost, low maintenance with no moving parts
- Simple installation and operation
- Rugged vibration resistant design
- Direct replacement for Fireye

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Product Specifications

Path Length (flange to flange)	1.6 ft – 65 ft (0.5m to 20m)
Measurement Range	0-100% opacity
Accuracy	± 2% full scale
Resolution	0.1
Drift with Temperature	± 2% over any 68 °F within operating range
Light Source	Green LED
Voltage	+24VDC (90 – 260 VAC available)
Current Consumption	400mA nominal
Purge Air Supply	Instrument Air or Blower (must exceed max stack pressure)
Measurement Gas Temp	1,112 °F (600 °C)
Ambient Temp	-4 to 122 °F (-20 °C to 50 °C)
Outputs	Analog 4-20mA
Relay Contacts	3A at 30VDC (level alarms)
Communication	Serial (ModBus, USB, Ethernet)

Ordering Information

Model 6000 Single Pass Opacity Monitor

Choose from the following configurations/options to customize your own Model 6000

Path Length

S = Short (1.6 ft – 16)
L = Long (10 ft – 65 ft)

Controller Mount Style

N= No Controller
W= Wall Mount
P= Panel Mount

Voltage

A= 24VDC
B= 90 – 160 VAC 50/60 Hz

Transmitter/Receiver

A= Aluminum Air Purge Head
S= Stainless Steel Air Purge Head

Flange

A= ANSI 150, 1.5" Flange

Cables

T= TX/RX Interconnect Cable (150' Max)
R= RX/Controller Interconnect Cable (600' Max)

Your Order Code: 6000 _____

**Flange Adapters available upon request*

Service Offering

To ensure trouble free performance and reliability of all Cemtek Instrument products, we offer a comprehensive portfolio of service offerings at fixed cost pricing including; installation, training, support, extended warranty and preventative maintenance.

Visit us at:

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