



Model DT1000 Opacity Monitoring System

The Datatest Model DT1000 visual emissions monitor is an Environmental Protection Agency compliant Opacity Monitor designed to operate accurately, trouble-free, and require minimal maintenance. It has been tested and operated under a wide variety of process and operating conditions since its introduction, and is a market leader in performance and reliability.

Key Benefits

- EPA certifiable double-pass monitoring system
- On-line calibration check
- Off-stack processor
- Modular design
- Automatic span and stack exit correction
- 4% Dust Alarm

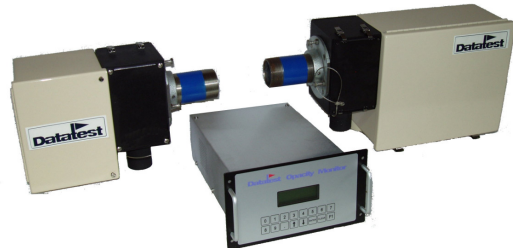
FIBER OPTICS

Performance of the Model DT1000 is virtually unaffected by vibration, dust, or temperature changes. Due to a system of glass fiber optic cables, the traditional arrangement of lenses, mirrors, and pipes are not used. There are no moving parts exposed to the effluent. The DT1000 delivers years of problem-free service with no mechanisms to corrode or mirrors to re-align.

The Model DT1000 specs exceed relevant sections of EPA 40CFR60 and ASTM D6216.

MODULAR, OFF-STACK PROCESSOR FOR QUICK AND EASY MAINTENANCE

The need for climbing the stack for repairs and maintenance is greatly reduced. Most of the Model DT1000 electronics are located in the control unit. This can be conveniently



mounted up to 2000 feet away from the transmitter/receiver. And all electronic components are fitted with quick disconnects for quick, easy maintenance.

Span calibration is accomplished by a predetermined filter on the chopper-timer wheel. At adjustable intervals from 1 to 24 hours, the light source, beam splitter, photopic filter, silicon cell, and all other electronics are monitored. Errors are indicated on the control unit or optional equipment, such as the printer or chart recorder. Manual zero and span calibration can also be performed on the stack and in the control unit.

Opacity readings at the stack exit are corrected for different spans in the ducts or at other locations on the stack. Stack exit correction is required in applications where the span values differ between the point of measurement and the point of effluent exit.

The Model DT1000 corrects itself each second for the presence of sunlight, lamp envelope darkening, temperature change, amplifier drift, photo detector sensitivity change, dark currents, and AC/DC power fluctuations.

Datatest emission monitoring products

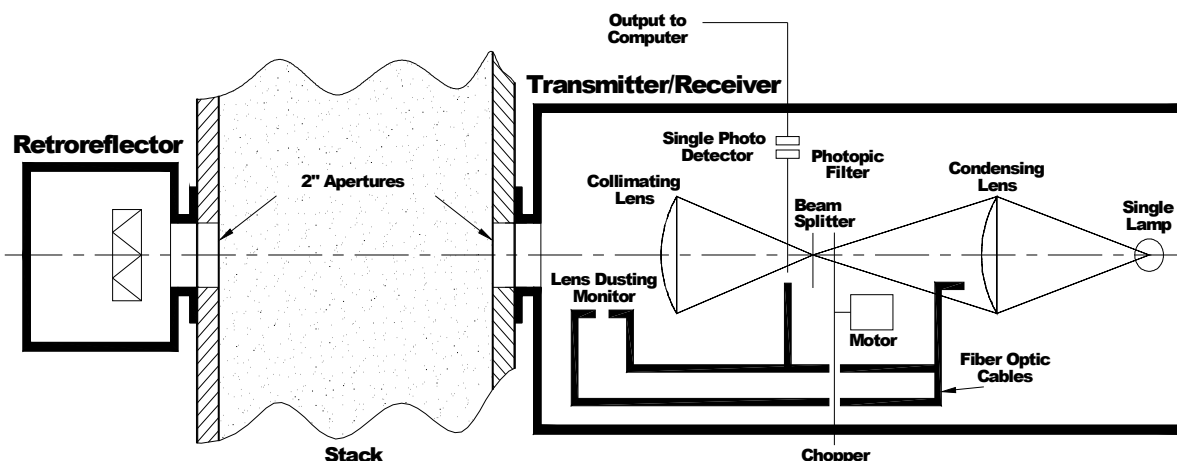
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The Model DT1000 Opacity monitor has no mechanical or electrical parts that contact the process. All components except for the fiber optic lens dust monitor are sealed behind the collimating lens.



Specifications

Measurement System

EPA Compliant

Purge Air Blower System (800-31/32)

Outlets:

Voltage / Current

Volume:

Weight:

Environmental

Electronics Operating Temp:

Enclosure:

Max Flange / Stack Temp:

Dimensions / Weight

Lamp Power Supply:

Retro-reflector:

Transceiver:

Remote Monitoring Unit

Ambient Operating Temp:

Analog Output:

Serial Output:

Audible Alarm:

Dimensions:

Display:

Electronics:

Inputs:

Keypad:

Mounting:

Power Supply:

Relay Outputs:

Relay Rating:

Status Indicators:

Weight:

Options: Hi temp thermal flanges

Meets or exceeds EPA specification 40CFR60 and ASTM D6216-07

Single/Dual

115/230V AC, 50/60 Hz. / 3.4/5 Amps.

63CFM

80 lbs.

Up to 150 °F.

NEMA 4X.

600 °F- Flange mounted on thermal insulators / Up to 2000 °F.

6 x 8 x 15 inches / 25 lbs

6 x 8 x 12 inches / 13 lbs.

9 x 10 x 20 inches / 23 lbs.

32 to 120 °F, 0 to 50 °C.

4-20 mA.

Modbus RTU over either RS232, 485, or 422.

Piezo electric buzzer.

14" x 12" x 8" (NEMA 4 unit)

80 Character backlit LCD

Microprocessor based with analog I/O serial capabilities.

Remote trigger for calibration cycle.

16 key tactile feel

Panel Mount or NEMA 4 Wall Mount.

115/230 VAC, 50/60 Hz

Dry contacts for Cal Mode, Pre-emission, Over-emission, Fault, more...

1 A at 24 VDC, 1 A at 125 VAC.

4% lens dusting, Pre-emission, Over-emission, lamp-out and more...

20 lbs.

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