



Criterion 6.0 Series

Tisch Environmental (TE) is the benchmark for continuous sampling and monitoring of criteria pollutants including gases, particulates, metals, volatiles, and specialty monitoring equipment. Since the company's inception in 1953 as General Metal Works, the TE product line has expanded from the first high volume air sampler to include continuous gas and particulate analyzers.

The Criterion 6.0 Series of analyzers provide real time air quality monitoring of particulate concentration. The Criterion 6.0 Series analyzers continuously measure and record the concentration of PM₁₀, PM_{2.5} and PM₁ simultaneously in real time. All Criterion 6.0 Series analyzers feature internal data logging for particle concentrations and allow connectivity for wind speed, wind direction, temperature, humidity, rainfall and two external gas or noise meter inputs.

Measurement Principal: All Criterion 6.0 Series analyzers feature a propriety spectrometer. A pump continuously draws an air sample through the spectrometer which analyzes the individual particles as they pass through a laser beam. These same particles are then collected on the internal reference filter that can be used to confirm the gravimetric confirmation of the data. The spectrometer's dedicated microprocessor analyzes individual particles and allow for size fractions to be determined at concentrations up to several $\mu\text{g}/\text{m}^3$.

The Criterion 6.4 is a fixed station monitor that is intended for long term installation. Several sites can be networked together to form a city wide monitoring system, which can be controlled by various communication means including GSM modem and radio modems.

The Criterion 6.5 is a hand-held detector ideal for short term sampling. Highly effective for monitoring air quality within buildings and clean rooms.

- ④ Real time particulate air quality monitoring.
- ④ Simultaneous measurement of PM₁₀, PM_{2.5} and PM₁.
- ④ Spot monitoring, portable or permanent installations.
- ④ Long term unattended remote operation.
- ④ Very low operating costs.
- ④ Integrated data logger allows the connection of up to six additional meteorological sensors.
- ④ Internal memory for digital data storage.
- ④ Enhanced operator safety through the use of 12VDC internal voltages.
- ④ Data directly downloaded from front panel using direct PC connections.
- ④ Internal reference filter to confirm gravimetric calibration of the instruments.
- ④ Heated inlet controls sample relative humidity.
- ④ Remote connectivity through GSM cellular modem.

General Specifications

Particulates Analyzed:

PM10, PM2.5, and PM1
Inhalable, thoracic, and respirable fractions

Measurement Range:

0-6000 $\mu\text{g}/\text{m}^3$

Detection Limit:

0.01 $\mu\text{g}/\text{m}^3$

Indicator Range:

0-60 $\mu\text{g}/\text{m}^3$ without particle sizing

Particle Size Range:

0.5-20 micron diameter

Particle Counting Mode:

3 size channels in particle per cc

Flow Rate:

600cc per minute

Reference Filter:

25mm diameter GF/A Circle (part # TE-G653-25)

Security:

Password protection

Display:

2 line alphanumeric with backlight

Electrical Specifications

Power Source:

120V/230V, 50/60 Hz mains power

Consumption:

12VDC at 1A (0.3A instrument, 0.7A heater)
Sample current drain (Including heated inlet and
backlight) 1.2A

External Power Pack:

80-120VAC input, weatherproof (available as option)*

Communication Specifications

Included I/O:

Rs232 I/O 9600 baud via PC-Link
Telemetry I/O 1200 baud opto isolated
Analog Output 0-4V analog of TSP or Pm10 channel
12bit resolution
Other Logging Inputs:
Two 0 to 5V analog Inputs*

Meteorological Inputs:

Wind speed and wind direction*
Rainfall*
Temperature*
Humidity*

* Criterion TE 6.4 Only

Physical Specifications

Operating Temperature Range: -5°C to 50°C

Dimensions (H x W x D):

TE 6.4 21" (533mm) x 12" (305mm) x 6" (152mm)

TE 6.5 6.3" (160mm) x 4" (100mm) x 4" (100mm)

Net Weight:

TE 6.4 26.5lbs (12kg)

TE 6.5 2.65lbs (1.2kg)



Contact Information

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