

# Rental – Portable Laser Aerosol Monitor

## TSI DustTrak™ Aerosol Monitor

The DustTrak™ Aerosol Monitor is a portable, battery-operated laser photometer which gives you a real-time digital readout with the added benefits of a built-in data logger. Suitable for clean office settings as well as harsh industrial workplaces and outdoor applications, the DustTrak detects potential problems with airborne contaminants such as dust, smokes, fumes and mists.

The DustTrak™ measures aerosols in a wide variety of environments, from offices and industrial workplaces to outdoor environmental and construction sites. TSI's DustTrak provides reliable exposure assessment by measuring particle concentrations corresponding to PM10, PM2.5, PM1.0 or respirable size fractions.

### MODEL 8520 SPECIFICATIONS

Sensor Type.....	90° light scattering
Range.....	0.001 to 100 mg/m <sup>3</sup> (Calibrated to ISO 12103-1, A1 test dust)
Resolution.....	±0.1% of reading or ±0.001 mg/m <sup>3</sup> , whichever is greater
Zero Stability.....	±0.001 mg/m <sup>3</sup> over 24 hours using 10-second time-constant
Particle Size Range.....	0.1 to approximately 10 micrometers
Flow Rate Adjustable.....	1.4 to 2.4 l/min (1.7 nominally)
Temperature Coefficient.....	+0.001 mg/m <sup>3</sup> per °C (for variations from temperature at which the DustTrak was zeroed)
Operating Temperature.....	32° F to 120° F (0°C to 50°C)
Storage Temperature.....	-4° F to 140° F (-20°C to 60°C)
Operating Humidity.....	0 to 95% rh (non-condensing)
Time Constant.....	Adjustable from 1 to 60 seconds
Data Logging.....	31,000 data points (21 days of logging once/minute)
Logging Interval.....	Adjustable from 1 second to 1 hour
Physical External Dimensions.....	8.7 in. x 5.9 in. x 3.4 in. (221 mm x 150 mm x 87 mm)
Instrument Weight.....	3.3 pounds with batteries (1.5 kg)
Serial Interface.....	RS-232 1200 baud
<b>Power</b>	
AC.....	AC adapter (included)
Battery.....	Four C-size alkaline batteries (included)
Battery Run-time.....	Alkaline 16 hours
<b>Analog Output Specifications</b>	
Analog Output Voltage.....	0 to 5 VDC
Analog Output Scaling <sup>1</sup> .....	0 to 100 mg/m <sup>3</sup> 0 to 10.0 mg/m <sup>3</sup> 0 to 1.00 mg/m <sup>3</sup> 0 to 0.100 mg/m <sup>3</sup>
Output Impedance.....	0.01 ohm
Maximum Output Current.....	15 mA
<b>Alarm Output Specifications</b>	
Type.....	Non-latching, MOSFET solid state (polarized) <sup>2</sup> analog switch
Setpoint Range <sup>1</sup> .....	0.010 to 100 mg/m <sup>3</sup>
Maximum Voltage.....	15 VDC
Maximum Current.....	1 Amp
Deadband.....	-5% of alarm setpoint
Connector.....	4-Pin, Mini-DIN connector
Optional Accessories.....	Model 8520-1 Environmental Enclosure



1 User selectable through TRAKPRO™ Data Analysis Software.  
2 See TSI Application Note ITI - 074 for important wiring information.

**CALL GEOTECH TODAY (800) 833-7958**

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