

## Designed for continuous monitoring of high particle concentrations.

Monitoring ambient particle concentrations at pollution hot spots such as major traffic junctions, motorways, airports, or seaports can be challenging for Condensation Particle Counters (CPCs). The high concentrations of ultrafine particles can frequently exceed the maximum concentration limit of the CPC; this lowers the data quality, and can necessitate more frequent maintenance. The Aerosol Diluter lowers the particle concentration 10-fold by diluting the aerosol sample with a constant controlled flow of internally supplied filtered air. It is designed to enable continuous monitoring of ultrafine particle concentrations with the CPC models 3750 or 3750-CEN.

### **Features and Benefits**

- Lowers the particle concentration 10-fold by diluting with a constant flow of internally supplied filtered air
- Designed to work with flow rate of the CPC models 3750 and 3750-CEN (1.0 L/min); aerosol flow rate is provided by the attached CPC
- Dilution air is monitored by an internal mass flowmeter and controlled by an internal blower
- Electronic communication to CPC (models 3750 and 3750-CEN): Diluter reads aerosol flow, maintains a fixed dilution ratio of 10:1, and communicates parameters (diluter flow, ratio, and others) to the CPC

# **Applications**

- Air quality monitoring of ultrafine particles
- Environmental chamber studies
- High particle concentration measurements in a wide variety of applications



# **Specifications**

# Aerosol Diluter

### Flow Specifications

Aerosol Flow Rate 1 L/min controlled by attached CPC

Dilution Ratio 10.0 +/-5%

# **Ambient Operating Conditions**

Temperature 10 to 35 °C Pressure 75 to 105 kPa

Humidity 0 to 90%, noncondensing

# **Data Acquisition**

Continuous in CPC database when connected via USB with CPC 3750.

Alternative programming with 3rd party software optional.

### **Communication & User Interfaces**

Micro-USB to connect to CPC or to computer; connection is not required to operate.

## **Power Requirements**

100 to 240 VAC, 50/60 Hz, 200 W maximum Auto-recovery from power outage.

## Dimensions (HxWxD, Weight)

33.2 × 15.8 × 43.2 cm, 7.25 kg 13 × 6.2 × 17 in, 16 lbs incl. inlet, outlet and feet.

Specifications are subject to change without notice.

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