

BT-645 Portable Dust Monitor

The **BT-645** Portable Dust Monitor has been designed to continuously measure and record particulate information for indoor work place and public place environments.



Key Features:

- 'Real Time' monitoring
- Simple operation
- Rugged design
- Built-in Datalogger
- Purge air system
- Low power consumption

Optical Sensor

A laser optical sensor is used to detect and measure particulate concentrations up to 100 milligrams per cubic meter. The continuous flow optical sensor is combined with purge air to ensure accurate measurements in adverse environments.

Rugged Design

The optical sensor, matched electronics and backlit display, are enclosed in a rugged metal enclosure to protect the instrument from normal daily use.

Data Storage

The internal datalogger will store over 5,000 samples. Sample history events can be viewed on the display or downloaded to a computer using Comet software.

Battery Operation

The internal battery pack provides over 10 hours of continuous operation. Battery recharge time is approximately 2.5 hours.

Optional Inlets

The standard unit is supplied with a TSP inlet. Optional sampling inlets are available for PM2.5, PM1 and PM10.

Applications:

- Public and Workplace Monitoring
- Industrial / Occupational Hygiene
- Indoor Air Quality

Note: Not recommended for continuous outdoor use.

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Measurements & Specifications

OPERATING PRINCIPLE Forward light scatter laser nephelometer

PERFORMANCE

Concentration Range 0 to 100 mg/m³ (0 to 100,000 µg/m³)
Sensitivity 1 µg/m³
Accuracy 5% traceable to standard with 0.6 µm PSL
Measuring Time 1, 5, 10, 15, 30 and 60 minutes
Flow Rate 2 LPM

Note: Measurement accuracy requires use of appropriate K-factor for the material being measured.

ELECTRICAL

Light Source Laser diode, 5 mW, 670 nm
Power 14.8V Li-ion (Lithium Ion) battery pack
Battery Life Over 10 hours continuous operation
AC Adapter/Charger Li-ion battery charger, 100 – 240 VAC, 50/60Hz to 16.8 V @ 1.8 A
Communications RS-232, USB
Data Storage Over 5,000 samples

INTERFACE

Display 4 X 20 LCD
Keyboard 6-key membrane type

PHYSICAL

Size Height = 4.25" (10.8 cm)
Width = 7.44" (18.9 cm)
Thickness = 3.25" (5.4 cm)
Weight 3.7 lbs (1.7 kg)

ENVIRONMENTAL

Operating Temperature 0°C to +50°C
Relative Humidity 90% (non-condensing)
Storage Temperature -20°C to +60°C

ACCESSORIES

Supplied User Manual
USB Cable
Communications Software (Comet)
AC Adapter / Battery Charger

Optional PM2.5 Sharp Cut Cyclone (SCC-112)
PM10 Sharp Cut Cyclone (SCC-110)
Custom Serial Cable (PN 3228)
PM1 Cyclone (SCC-111)



BT-645 w/SCC-112 PM2.5 Sharp Cut Cyclone

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