

**KEY FEATURES:**

- Real-Time Monitoring
- Simple Operation
- Rugged Design
- Built-in Data-Logger
- Purge Air System
- Low Power Consumption

The BT-645 Benchtop Particle Counter has been designed to continuously measure and record particulate information for indoor work place and public place environments.

**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 combine with purge air to ensure accurate measurements in adverse environments.



BT-645 w/SCC-112 PM<sub>2.5</sub> Sharp Cut Cyclone

**APPLICATIONS:**

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

**Rugged Design**

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

**Data Storage**

The internal data-logger will store over 28,000 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 ten 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 PM<sub>2.5</sub>, PM<sub>1</sub>, and PM<sub>10</sub>.

## Interface

Display 20 character x 4-line LCD  
Keyboard 6-key membrane type

## Performance

Concentration Range 0 to 100 mg/m<sup>3</sup> (0 to 100,000 µg/m<sup>3</sup>)  
Sensitivity 1 µg/m<sup>3</sup>  
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 Power Laser diode, 5 mW, 670 nm  
Battery Life 14.8V Li-ion (Lithium Ion) battery pack  
AC Adapter/ Charger Over 10 hours continuous operation  
Communications Li-ion battery charger, 100 – 240 VAC, 50/60Hz to 16.8 V @ 1.8 A RS 232, USB  
Data Storage Over 28,000 samples

## Physical

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

## Environmental

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

## SUPPLIED ACCESSORIES

User Manual  
USB Cable  
Communications Software (Comet)  
AC Adapter / Battery Charger  
Calibration Certificate  
Zero Filter Assembly  
Li-ion Smart Charger w/ Power Cord  
Sample Inlet (TSP)

## OPTIONAL ACCESSORIES

PM<sub>2.5</sub> Sharp Cut Cyclone  
PM<sub>10</sub> Sharp Cut Cyclone  
PM<sub>1</sub> Sharp Cut Cyclone  
Custom Serial Cable

**NOTE: Not recommended for continuous outdoor use.**

*Specifications are subject to change at any time.*

