



# SPC8000 Series

## Handheld Airborne Particle Counter

### Features

- Measures 0.3  $\mu\text{m}$  to 25.0  $\mu\text{m}$
- 0.1 CFM (2.83 LPM) flow rate
- Long life laser diode technology
- Measures up to 6 channels of simultaneous data
- Approximates mass concentration in  $\mu\text{g}/\text{m}^3$  with density and refractive index corrections
- Large easy-to-use icon driven color touch screen display
- Temperature and relative humidity probe can be added
- Stores up to 45,000 sample records, 1,000 sample locations and 50 recipes
- Real-Time Meter for detecting particle contamination sources
- Connect using Ethernet, USB or (optional) Wireless 802.11 b/g, RS 485 or RS232
- Displays and externally prints reports for ISO 14644-1, EU GMP Annex 1 and FS 209E
- Internal audible alarm
- User-definable reports
- User-selectable channel sizes
- Complies with ISO 21501-4 and JIS B9921 standards
- Seamless integration into a facility monitoring system
- Lightweight high-impact injection molded plastic enclosure
- 2 year warranty. Extended warranties available

The Setra Systems SPC8000 Handheld Airborne Particle Counter is the most feature-advanced handheld particle counter available. This instrument can measure between 0.3  $\mu\text{m}$  to 25  $\mu\text{m}$  sized particles with a flow rate of 0.1 CFM (2.83 LPM) and is the most versatile line of remote particle counters available.

### 6 user-selectable particle size channels

The SPC8000 reports and displays up to 6 user-selectable particle size channels, as well as temperature and relative humidity, flow and sensor status, date of last calibration, serial number, laser on-time and date of manufacture for easy maintenance and warranty management.

### User-friendly experience

Easy to configure, this instrument displays up to 6 user-selectable size channels as well as temperature and relative humidity. View data and generate ISO 14644-1, EU GMP Annex 1 or FS 209E reports on screen or via printer, USB key, real time through its versatile output options or export to Setra Systems data-download software. Setra Systems counters can be controlled and monitored remotely via a web browser. The SCP8000 Series mass concentration mode approximates density in  $\mu\text{g}/\text{m}^3$  and allows for density and refractive index corrections to ensure accuracy.

### Advanced data storage

The SPC8000 Series particle counter stores up to 45,000 time stamped particle count and environmental data records which provides data redundancy on every instrument. This particle counter also has a mass concentration mode that approximates density in  $\mu\text{g}/\text{m}^3$ .

All Setra Systems counters meet ISO 21501-4 and JIS B9921. The SPC8000 series also ensures compliance with an on-board pulse height analyzer.



# Specifications

## General

<b>Size range</b>	0.3 to 25 µm
<b>Size channels</b>	Factory calibrated at 0.3, 0.5, 1.0, 2.5, 5.0, 10.0 µm variable binning
<b>Flow rate</b>	0.1 CFM (2.83 LPM)
<b>Battery run time<sup>1</sup></b>	10 hours
<b>Concentration limit</b>	>4,000,000 Particles/ft <sup>3</sup> @ 5% coincidence loss
<b>Light source</b>	Long-life laser diode
<b>Counting efficiency</b>	50% @ 0.3 µm; 100% for particles >0.45 µm per JIS
<b>Zero count</b>	<1 count / 5 minutes (<2 particles / ft <sup>3</sup> ) (per ISO 21501-4 & JIS)
<b>Count modes</b>	Automatic, manual, real-time meter, cumulative/differential, mass concentration, count or concentration
<b>Count alarms</b>	1 to 9,999,999 counts
<b>Calibration</b>	NIST traceable (Recommended minimum once per year)
<b>Display</b>	4.3" (10.9 cm) WQVGA (480x272) color touch screen
<b>Printer (Optional)</b>	External thermal printer
<b>Vacuum source</b>	Internal pump with automatic flow control
<b>Filtered exhaust</b>	Internal HEPA filter
<b>Number of channels</b>	6
<b>Custom size channels</b>	Calibration for custom size channels available
<b>Audible alarm</b>	Adjustable built-in alarm
<b>Battery</b>	Removeable Li-ion
<b>Battery recharge time</b>	4 hours within instrument (<2 hours with external battery charger)
<b>Reports</b>	ISO 14644-1, EU GMP Annex 1, FS 209E
<b>Recipes</b>	50 user-configurable recipes
<b>Communication modes</b>	Ethernet, USB
<b>Optional communication modes</b>	Wireless 802.11 b/g, RS485 or RS232

Specifications subject to change without notice.

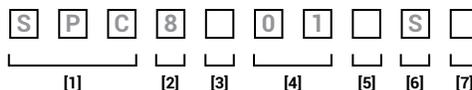
## General (continued)

<b>Reports</b>	ISO 14644-1, EU GMP Annex 1, FS 209E
<b>Recipes</b>	50 user-configurable recipes
<b>Communication modes</b>	Ethernet, USB
<b>Optional communication modes</b>	Wireless 802.11 b/g, RS485 or RS232
<b>Environmental sensors</b>	Includes temperature and relative humidity probe 32° to 122°F (0° to 50°C) ±1°F (0.5°C), 15-90% ±2% relative humidity
<b>Alarm</b>	Alarms on counts for all particle sizes, low battery, sensor failure, environmental sensors and flow
<b>Standards</b>	ISO 21501-4 and JIS B9921
<b>External surface</b>	High impact injection molded plastic
<b>Dimensions (L x W x H)</b>	10" x 5" x 4.5" (25.4 cm x 12.9 cm x 11.4 cm) includes handle and does not include probes
<b>Weight</b>	2.2 lb (1.0 kg)
<b>Accessories</b>	Quick start guide, operating manual on USB flash drive, isokinetic probe, temperature relative humidity sensor, purge filter, battery, data download software, USB cable, power supply & cable
<b>Optional Accessories</b>	Printed manual, carrying case, spare battery, external battery charger, external printer and isokinetic probes
<b>Buffer memory</b>	45,000 sample records (rotating buffer) including particle count data, environmental data, locations and times. Scrollable on screen or printout
<b>Sample locations</b>	Up to 1,000 locations 20 characters long and 50 user defined recipes
<b>Sample time</b>	1 second to 99 hours
<b>Power</b>	110 to 240 VAC 50/60 Hz universal in-line power supply
<b>Operating conditions</b>	41° to 104°F (5° to 40°C); 20% to 95% non-condensing
<b>Storage conditions</b>	32° to 122°F (0° to 50°C); Up to 98% non-condensing
<b>Warranty</b>	2 Year Limited Warranty Extended warranties available

# Ordering information

Example part number: SPC83016SW;

Particle counter, 8000 Series, 0.3 µm minimum particle size, 0.1 CFM, 6 channels, standard calibration, WiFi connectivity:



[1] Model	
SPC	Particle Counter

[2] Series	
8	8000 Series

[3] Min. particle size	
3	0.3 µm
5	0.5 µm

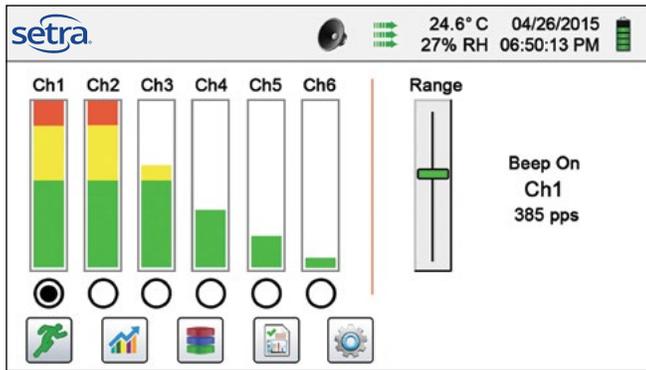
[4] Flow rate	
01	0.1 CFM

[5] Channels	
3	3 channels
6	6 channels

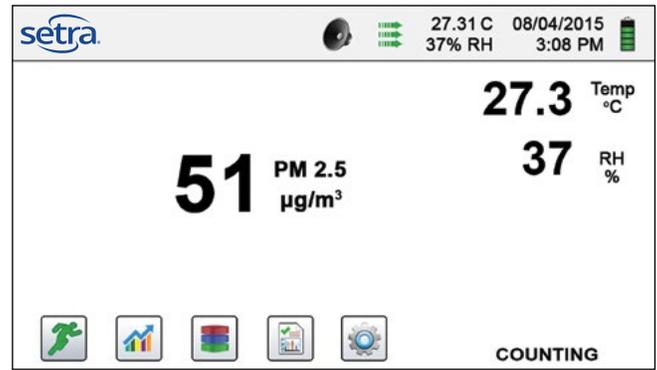
[6] Calibration	
S	Standard

[7] Connectivity	
S	Standard
M	Modbus
W	WiFi

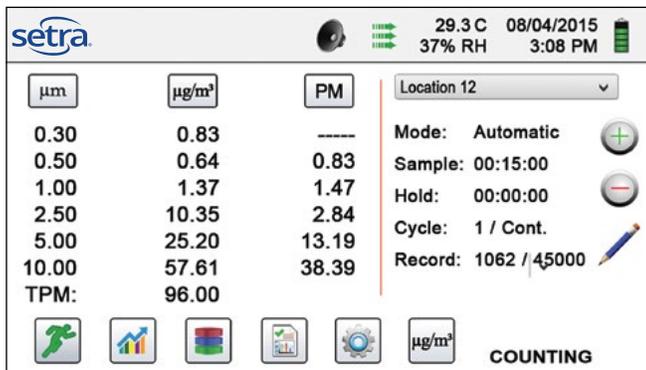
## User experience



**Real-Time Meter™ Pinpoints Particle**



**Configurable Environmental Sensor Display**



**Simultaneous display of multiple PM Sizes**