



SPC8000 Series

Handheld Airborne Particle Counter

Features

- Measures 0.3 μm to 25.0 μm
- 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, or (optional) BACnet IP and BACnet MS/TP
- Static or dynamic IP address (DHCP)
- 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 μm to 25 μm 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

Size range	0.3 to 25 µm
Size channels	Factory calibrated at 0.3, 0.5, 1.0, 2.5, 5.0, 10.0 µm variable binning
Flow rate	0.1 CFM (2.83 LPM)
Battery run time¹	10 hours
Concentration limit	>4,000,000 Particles/ft ³ @ 5% coincidence loss
Light source	Long-life laser diode
Counting efficiency	50% @ 0.3 µm; 100% for particles >0.45 µm per JIS
Zero count	<1 count / 5 minutes (<2 particles / ft ³) (per ISO 21501-4 & JIS)
Count modes	Automatic, manual, real-time meter, cumulative/differential, mass concentration, count or concentration
Count alarms	1 to 9,999,999 counts
Calibration	NIST traceable (Recommended minimum once per year)
Display	4.3" (10.9 cm) WQVGA (480x272) color touch screen
Printer (Optional)	External thermal printer
Vacuum source	Internal pump with automatic flow control
Filtered exhaust	Internal HEPA filter
Number of channels	6
Custom size channels	Calibration for custom size channels available
Audible alarm	Adjustable built-in alarm
Battery	Removeable Li-ion
Battery recharge time	4 hours within instrument (<2 hours with external battery charger)
Reports	ISO 14644-1, EU GMP Annex 1, FS 209E
Recipes	50 user-configurable recipes
Communication modes	Ethernet, USB, BACnet ¹
Optional communication modes	Wireless 802.11 b/g, RS485 or RS232

General (continued)

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

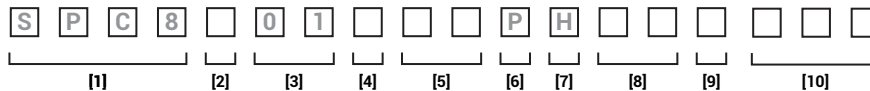
¹BACnet Communication via Modbus to BACnet Gateway. Must order via "-BAC" in part number. Network configuration files included for both BACnet IP and BACnet MS/TP.

Specifications subject to change without notice.

Ordering information

Example part number: SPC83016WFPHTTE;

SPC8000 Series, 0.3 µm particle size, 0.1 CFM, 6 channels, Standard connectivity with WiFi, Internal pump, Hand held form factor, On board RH & Temp sensors, Extended warranty.



[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Series	Min. particle size	Flow rate	Channels	Connectivity	Pump	Form factor	On board sensor	Warranty	BACnet Gateway
SPC8 SPC8000	3 0.3 µm 5 0.5 µm	01 0.1 CFM	3 3 channels 6 6 channels	SD ¹ Standard RS Standard w/ RS232-485 WF Standard w/ WiFi	P Internal pump	H Hand held	NN ² None HT RH & Temp	S Standard E Extended	BAC Included ³

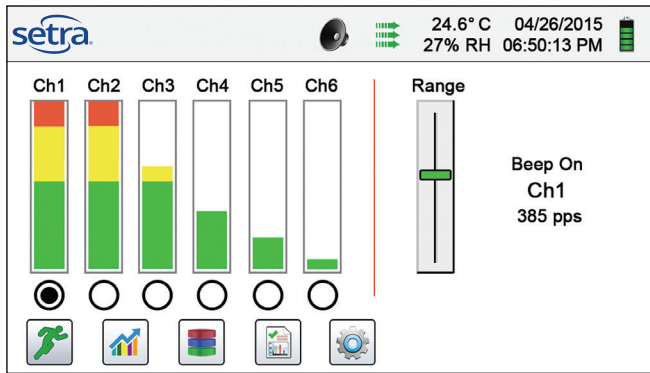
¹ Standard option includes USB client, USB Go, and Ethernet.

² Not available for 6 channel product

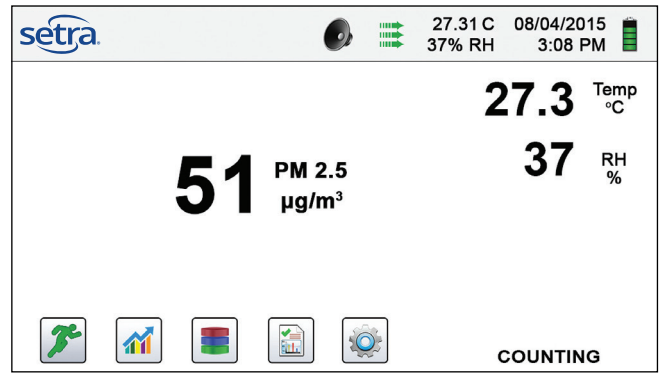
³ Select if BACnet Protocol Communication is needed, otherwise leave blank

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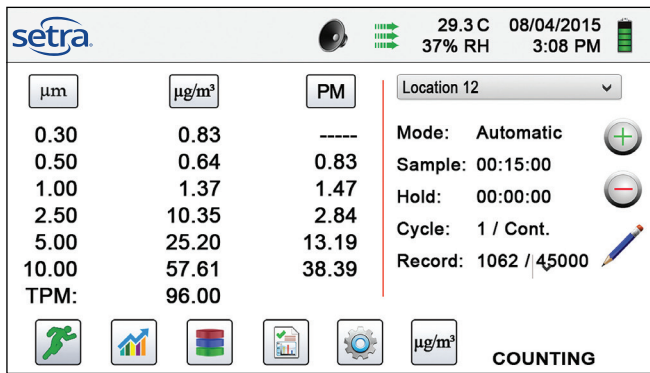
User experience



Real-Time Meter™ Pinpoints Particle



Configurable Environmental Sensor Display



Simultaneous display of multiple PM Sizes



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