



# SPC5000 & SPC7000 Series

Remote Airborne Particle Counter

## Features

- Can measure between 0.3  $\mu\text{m}$  to 25  $\mu\text{m}$  particle sizes
- 0.1 CFM (2.83 LPM) flow rate
- Measures 6 channels of simultaneous data
- Approximates mass concentration in  $\mu\text{g}/\text{m}^3$
- 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
- Connect using Ethernet, USB or (optional) Wireless 802.11 b/g, RS485 or RS232
- 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
- Easy to clean and wipe down with minimal particle traps
- Seamless integration into a facility monitoring system
- 2 year warranty. Extended warranties available.

The Setra Systems SPC5000 and SPC7000 Remote Particle Counters are the most feature advanced remote particle counters available. These instruments 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. Each particle counter can be easily integrated into a building automation and cleanroom management system via Ethernet, USB or (optional) Wireless 802.11 b/g, RS485 or RS232. The SPC7000 series can be used as a stand-alone battery operated instrument.

## 6 user-selectable particle size channels

The SPC5000 and SPC7000 report and display 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

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 web browser.

## Advanced data storage

The SPC5000 and SPC7000 Series particle counters each store up to 45,000 time stamped particle count and environmental data records which provides data redundancy on every instrument. Each 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. Configuration "SPC7301" ensures compliance with an on-board pulse height analyzer.



## Specifications

### General

<b>Size range</b>	
Option code "3":	0.3 to 25 µm
Option code "5":	0.5 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/ft³ @ 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 / ft³) (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>	Optional external thermal printer available. Prints in all available languages.
<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>Communication modes</b>	Ethernet, USB
<b>Optional communication modes</b>	Wireless 802.11 b/g, RS485 or RS232

<sup>1</sup>Battery option code "7" only.

Specifications subject to change without notice.

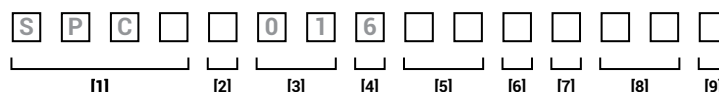
### General (continued)

<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>	Stainless steel
<b>Dimensions (L x W x H)</b>	5.2" x 4.15" x 8.25" (13.3 cm x 10.5 cm x 21 cm) includes barb fittings
<b>Weight</b>	4 lb (1.8 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, 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
<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: SPC73016WFPBHTP;

SPC7000 Series, 0.3 µm particle size, 0.1 CFM, 6 channels, Standard connectivity with WiFi, Internal pump, Benchtop form factor, On board RH & Temp sensors, Extended warranty with additional pump warranty:



[1]		[2]		[3]		[4]		[5]		[6]		[7]		[8]		[9]	
Series		Min. particle size		Flow rate		Channels		Connectivity		Pump		Form factor		On board sensor		Warranty	
SPC5	SPC5000	3	0.3 µm	01	0.1 CFM	6	6 channels	SD <sup>1</sup>	Standard	N <sup>2,3</sup>	No pump	W <sup>2</sup>	Wall mount	NN <sup>2</sup>	None	S	Standard
SPC7	SPC7000	5	0.5 µm					RS	Standard w/ RS232-485	P	Internal pump	B	Benchtop	HT	RH & Temp	E	Extended
								WF	Standard w/ WiFi							P	Extended w/ add't pump warranty

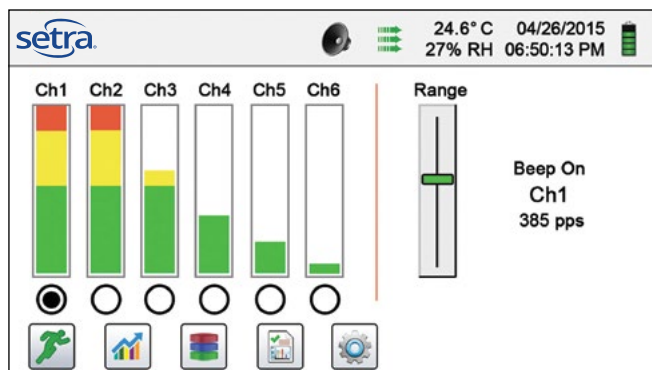
<sup>1</sup> Standard option includes USB client, USB Go, and Ethernet.

<sup>2</sup> Only available with Series code "SPC5".

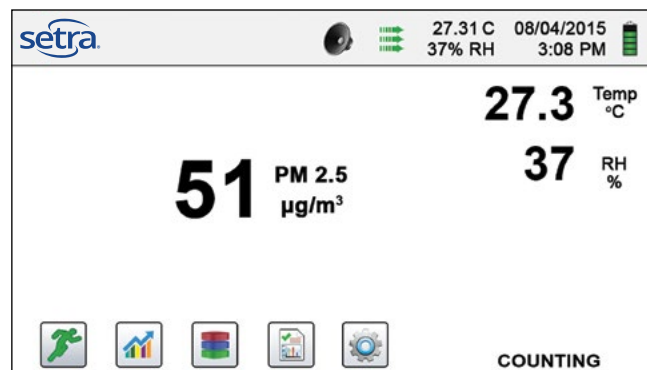
<sup>3</sup> Must be ordered with mount type code "W".

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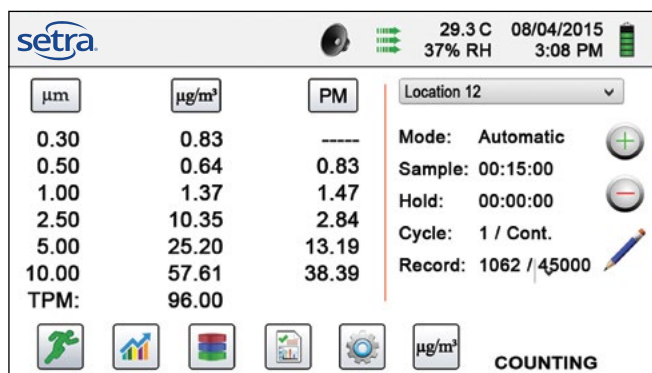
## User experience



Real-Time Meter™ Pinpoints Particle



Configurable Environmental Sensor Display



Simultaneous display of multiple PM Sizes