

User Manual



Mini Particle Counter

with Bluetooth® Mobile App

Model 20250-65



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THE STANDARD IN PRECISION MEASUREMENT

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Introduction

The Digi-Sense Mini Particle Counter with Bluetooth® Connectivity (model 20250-65) allows you to transmit data directly to your Android™ or iOS® device using our free D/S Particle mobile app. Now you can view data at a safe distance from potentially hazardous parameters or even use your smart device as a real-time secondary display for checking measurements, eliminating the need to write down readings on paper. The results are automatically stored in the app with a date-and-time stamp and can be saved as a CSV file and emailed for future reference, manipulation, or analysis to help determine trends and conditions over a long period of time. You can also use the app to attach photos and notes to the records creating a clear reference point for your work.

Setup is simple. Download the free D/S Particle app to your Android or iOS device. Place the particle counter in Bluetooth mode and open the app on your device. The counter will be sensed by your device and be listed as an available source that you can select. Once selected, the measured data is displayed on your smart device and some of the instrument functions can also be accessed. A full description of its operation is available for download in the app.

This handheld mini particle counter provides fast, easy and accurate readings for particulate counts, particle mass concentration, air temperature, and relative humidity. Real-time measurements can be displayed on 2.0" color TFT LCD or recorded in memory. Proper use and care of this device will provide many years of reliable service.

Safety

- Do not use in extremely dusty environments. The intake of too many particles will damage the device.
- To ensure the measure accuracy, do not use in a foggy environment.
- Do not use in an explosive environment.
- Always follow the instructions for this device. Repairs should only be made by the manufacturer.

Unpacking

Check individual parts against the list of items below. If anything is missing or damaged, please contact your instrument supplier immediately.

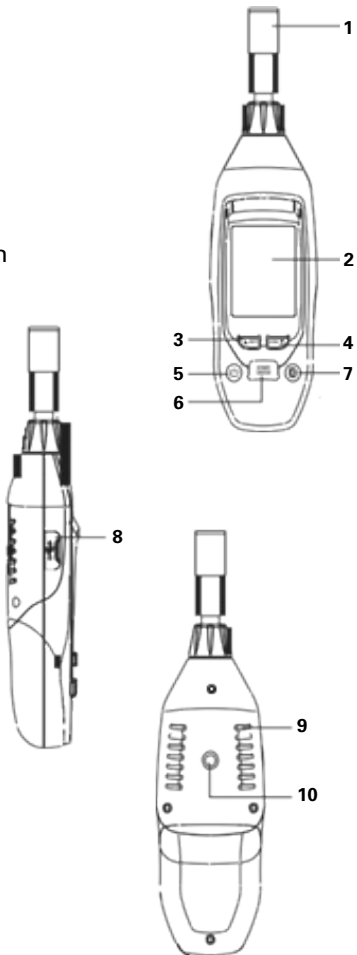
1. Particle counter
2. Sensor protective cap
4. One 9 V battery
5. Carrying case
6. User manual

Key Features

- Bluetooth 4.0 interface
- User-friendly mobile app
- 2" TFT 220 x 176 pixel color LCD
- Measures PM2.5 and PM10 simultaneously
- Air temperature and humidity
- Real-time clock display
- Analog bar indicator
- Auto power-off

Meter Description

1. Particle sensor
2. LCD
3. SET/▲ button
4. ESC/▼ button
5. Power ON/OFF button
6. Start/Enter button
7. Bluetooth button
8. USB charge interface
9. Air-bleed hole
10. Bracket mounting hole



Setup and Operation

Measurement Mode

Press and hold the **Power ON/OFF** button until the color display turns on. Remove the protective cap from the sensor. Point the device at the area to be measured.

Press the **Start/Enter** button to begin measuring; the measurement will run for the selected sample time. The top-left corner of the LCD will display measurement status "Counting" and the bottom of the LCD will indicate the temperature and humidity readings.

Press the **Start/Enter** button again to stop measuring; the top left-corner of the LCD will indicate "Stopped". The LCD displays the last measurement result for each channel. Data will be automatically saved to the meter memory which can store up to 5000 readings.

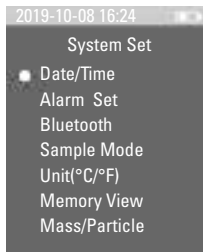
When Bluetooth is activated, the data will be synchronized to the mobile terminal. When activating Bluetooth in real-time measurement mode, the real-time data will be displayed in the mobile terminal synchronously.



Setup Mode

Powering on the meter, long press the **SET/▲** button to enter into the System Setup mode.

Use the **SET/▲** button and **ESC/▼** button to select the menu option needed, then press **Start/Enter** button to enter into the appropriate settings page.



Date/Time

After entering into Date/Time setup mode, press the **SET/▲** button and **ESC/▼** button to select the value, press **Start/Enter** button to set next value. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



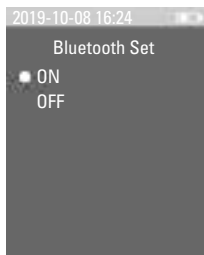
Alarm

Use the **SET/▲** button and **ESC/▼** button to activate or deactivate alarm function. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



Bluetooth®

Use the **SET/▲** button and **ESC/▼** button to activate or deactivate the Bluetooth function. Bluetooth is activated by default. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



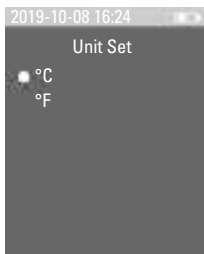
Sample Time

Use the **SET/▲** button and **ESC/▼** button to select the sampling time: 30 s, 1 min, 2 min, or 5 min. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



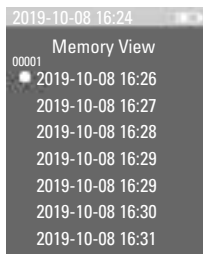
Unit of Measure (°C/°F)

Use the **SET/▲** button and **ESC/▼** button to set the temperature unit: °C or °F. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



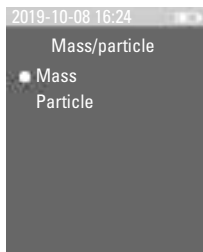
Memory View

Use the **SET/▲** button and **ESC/▼** button to select storage catalog; press **Start/Enter** button to view selected data set. Up to 5000 sets of data can be stored in memory. Long press **ESC/▼** button to return to the storage catalog. Long press **ESC/▼** button to return to the system settings mode.



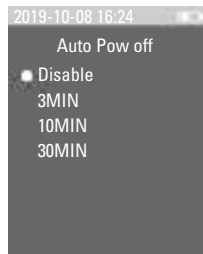
Mass/Particle

Use the **SET/▲** button and **ESC/▼** button to select whether the mass concentration is displayed or particles are counted. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



Automatic Power-Off

Use the **SET/▲** button and **ESC/▼** button to select whether the device switches off automatically after 3, 10, or 30 minutes of nonuse; or completely disable this function. After finishing the setup, long press **ESC/▼** button to return to the system settings mode.



Shortcut Keys

- Press the Bluetooth icon button to turn on or off the Bluetooth function.
- To delete stored data in memory, first press and hold the **ESC/▼** button then press the Bluetooth icon button until the buzzer sounds.

Specifications

Particle Counter

Channels: 2.5 μm (PM2.5), 10 μm (PM10)

Mass concentration: 0 to 2000 $\mu\text{g}/\text{m}^3$

Resolution: 1 $\mu\text{g}/\text{m}^3$

Air Temperature Measurement

Temperature range: 32 to 122°F (0 to 50°C)

Resolution: 0.1°F/°C

Basic accuracy: $\pm 2^\circ\text{F}$ ($\pm 1^\circ\text{C}$)

Humidity range: 0 to 100% RH

Resolution: 0.1% RH

Basic accuracy: $\pm 3.5\%$ RH from 20 to 80% RH;
 $\pm 5\%$ RH remaining

Maintenance and Repair

- Clean the device with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners: only use clean water.
- The product must be repaired by the manufacturer.