# MET ONE 3411
# Portable Airborne Particle Counter


CHARACTERIZED
*by ingenuity.*

BECKMAN COULTER
Life Sciences

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## PORTABLE AIRBORNE PARTICLE COUNTER

Do you trust the results?

How much time do you spend recording and analyzing the data?

Does your particle counter contaminate your cleanroom?

Introducing the MET ONE 3411 0.1 micron sensitivity portable airborne particle counter. Unlike many particle counters the MET ONE 3411 fan remains off when operating in a standard semiconductor cleanroom environment, thus particle generation is virtually eliminated.

## Cleanroom-friendly monitoring

Reduced particle impact to cleanroom environment

## Unit-to-unit accuracy and reproducibility

Ensured through ISO 21501 compliance

## Flexible communications

Wireless, Ethernet, Serial and USB

## Long continuous operation

Dual hot-swappable batteries

## Intuitive touch-screen user interface

Easy area, location, operating parameter configuration and replication

The MET ONE 3411 is designed to meet the rigorous requirements of ISO-21501-4 to provide the users with unparalleled accuracy. This ensures the repeatability of particle measurements between multiple instruments; critical for process benchmarking and troubleshooting activities.

# Specifications

| | | |
|---|---|---|
| **Number of Size Channels** | 6 | |
| **Particle Sizes** | 0.1 µ, 0.2 µ, 0.3 µ, 0.5 µ, 1.0 µ, 5.0 µ | |
| **Flow Rate** | 1.0 CFM (28.3 LPM) | |
| **Zero Count** | ISO 21501-4 and JIS B 9921: 1 count or less in 5 minutes, 95% UCL | |
| **Coincidence Loss** | 5% at 50,000 /ft3 per ISO 21501-4 method | |
| **Counting Efficiency** | 50% at 0.1 µm;<br>100% for particles > 0.15 µm per ISO 21501-4 and JIS B 9921 | |
| **Light Source** | Helium Neon Laser, 5 mW Max Power at 632.8 nm | |
| **Pump Type** | Patented multi-lobe closed loop controlled rated for continuous use | |
| **Display** | ¼ VGA Color TFT touch screen | |
| **Printer** | High speed thermal | |
| **Language** | English, French, German, Italian, Spanish, Korean*, Japanese*,<br>Chinese (Simplified and Traditional)* | |
| **Maximum Count Displayed** | 9,999,999 displayed | |
| **Delay Time** | 15 seconds to 23 hours 59 minutes 59 seconds | |
| **Sample/Hold Times** | 1 second to 23 hours 59 minutes 59 seconds | |
| **Count Alarms** | 1 to 9,999,999 counts | |
| **Data Storage** | 5,000 samples, scrollable on Historical Data review screen<br>(FIFO or Overflow) | |
| **Locations** | ID: 0 to 999; NAME: Alphanumeric, appears on printout | |
| **Outputs** | USB Client (Version 1.1)<br>USB Host (Version 1.1)<br>RS-485<br>Ethernet with TCP/IP protocol<br>Wireless with 802.11g protocol (optional)<br>MET ONE 2432 Manifold<br>Auxiliary (alarm and scan probe) | |
| **Communication Protocol** | Modbus TCP, Modbus RTU, Serial FX | |
| **Inputs** | Air Velocity Probe<br>RH/Temperature Probe | |
| **Auto CDA Purge** | Purge solenoid activated by connection to CDA | |
| **Battery Type** | Lithium ion smart battery; rechargeable, ejectable, and hot-swappable | |
| **Battery Quantity Included** | 2 | |
| **Battery Operating Time** | 3 hours minimum | |
| **Battery Recharge Time** | 6.75 hours minimum, 10 hours maximum | |
| **Power** | 24 VDC with 100-240 VAC, 50/60 Hz adapter | |
| **Enclosure Material** | Easy to clean passivated Stainless Steel | |
| **Size** | 33 W x 55.9 D x 22.9 H cm (13 x 22 x 9 inches) including protrusions, handles, feet, etc. | |
| **Weight** | Without battery: 15.9 kg (35 lbs), Battery: 0.66 kg (1.45 lbs) | |
| **Environment** | Operating | 10° to 40°C (50° to 104°F);<br>10 to 90% relative humidity, non-condensing |
| | Storage | -40° to 50°C (-40° to 122°F);<br>10 to 90% relative humidity, non-condensing |
| **Optional Accessories** | -40° to 50°C (-40° to 122°F);<br>10 to 90% relative humidity, non-condensing | |

**For more information, please contact:**

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For Beckman Coulter's worldwide office locations and phone numbers, please visit Contact Us at beckman.com

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