

MET ONE 3400 Series Portable Airborne Particle Counter

Features and Benefits

Flexible Communications

Wireless, Ethernet and Serial Communication options provide easy integration to any environmental monitoring software

Test Wizard for Easier Compliance

Test wizard and necessary documentation help in complying to ISO, FDA and EU standards - saves time and labor for planning, sampling and processing raw count data

Seamless Connectivity to Data Management Software

OPC Server enabled open communication architecture reduces cost of integration to commonly used industrial data management software

Intuitive User Interface

Easy area, location and operating parameter configuration and replication saves operator time for setting and running the counter

Multiple User Log-in

Password protected multi-level user access to instrument provides data security for 21 CFR Part 11 compliance

ISO 21501-4 Compliance

Designed for full ISO 21501-4 calibration compliance providing unit-to-unit accuracy and reproducibility

Long Life Laser™

Long Life Laser™ diode with 10-year MTTF reduces cost of ownership

Manifold Support

Support of MET ONE 2432 manifold provides low cost semi-continuous monitoring option

Hot-Swappable Batteries

Long battery life between charges results in longer instrument availability. Hot-swappable batteries eliminate the need for powering down, zero counting and powering back up

Selectable Channels

Straightforward selectable 8-channel option for easy filter testing

Hach Service

On site service, calibration support and service contracts to keep your equipment in compliance



With flexible communication options and an open communication architecture, the MET ONE 3400 can be seamlessly integrated into a central environmental monitoring system eliminating the need for manual record keeping. Intuitive operating commands and test wizard rich user interface software, Long Life Laser™ technology, and long continuous operation capability, enable the MET ONE 3400 Series to reliably perform cleanroom validation testing and critical process monitoring within the shortest possible time.

The MET ONE 3400 also features 21 CFR Part 11 compliance, easy data download, regulatory standard compliant analysis and reporting functions, strategically placed carrying handles and an easy-to-wipe down stainless-steel surface.

Use the MET ONE 3400 particle counter for cleanroom validation as a stand alone unit, a semi-continuous process monitoring with manifold system, or an on-line continuous process monitoring system by integrating to an environment monitoring software. The MET ONE 3400 can do it all.



Be Right™

Specifications

Standard Size Channels	3413 and 3423 3415 and 3425	0.3, 0.5, 1.0, 3.0, 5.0, 10.0* μm 0.5, 1.0, 2.0, 3.0, 5.0, 10.0 or 0.5, 1.0, 2.0, 3.0, 5.0, 25.0* μm
Flow Rate	3413 and 3415 3423 and 3425	28.3 LPM (1.0 CFM) \pm 5% (default factory setting) 50 LPM (1.77 CFM) \pm 5% (default factory setting)
Zero Count	Conforms to JIS B9921. 1 count or less in 5 minutes, 95% confidence level	
Coincidence Loss	28.3 LPM (1.0 CFM) 50 LPM (1.77 CFM)	5% at 14,126,000 particles/m ³ (400,000 particles/ft ³) 5% at 4,000,000 particles/m ³ (113,266 particles/ft ³)
Counting Efficiency	3413 and 3423 3415 and 3425	50% \pm 20% for 0.3 μm , (100% \pm 10% at 1.5 times the minimum sensitivity), fully complies with ISO 21501-4 50% \pm 20 for 0.5 μm , (100% \pm 10% at 1.5 times the minimum sensitivity), fully complies with ISO 21501-4
Light Source	Long Life Laser™ diode with 10-year Mean Time To Failure (MTTF)	
Pump Type	Air vacuum, rated for continuous use	
Count Display	Color 1/4 VGA TFT Touch Screen	
Interface	Windows CE®-based	
Sample/Hold/Delay Times	1 second to 23 hrs 59 min 59 sec	
Count Alarms	1 to 9,999,999 counts	
Count Cycles	Up to 100 while in automatic mode	
Manifold	Supports 2432 32-port Manifold System	
Location Labels	0 to 999, appears on printout	
Data Storage	5,000 samples, scrollable on Historical Data review screen	
Communication Interfaces	RS232, RS485, 802.11 b/g Wireless, 802.3 Ethernet, USB Client (Version 1.1), USB Host (Version 1.1)	
Communication Protocol	Modbus TCP, Modbus RTU, Serial FX	
Battery Type	Lithium ion smart battery; rechargeable, ejectable and hot-swappable	
Operating Time (Battery)	28.3 LPM (1.0 CFM) 50 LPM (1.77 CFM)	6 hours** 7 hours**
Battery Recharge Time	6.75 hours minimum, 10 hours maximum	
Power	24 VDC 3.2A with 100~240 VAC 50/60 Hz adapter (included in ship kit)	
Size Dimensions	31.8 W x 25.4 D x 20.3 H cm (12.5 x 10 x 8 inches)	
Weight (without battery)	3413 and 3415 3423 and 3425	7.55 kg (16.6 lbs) 8.33 kg (18.3 lbs)
Enclosure Material	Stainless Steel	
Environment	Operating	0 to 40° C (32 to 104° F), 10 to 90% relative humidity, non-condensing
	Storage	-40 to 50° C (-40 to 122° F), 0 to 98% relative humidity, non-condensing
Warranty	2 years (instrument), 3 years (Long Life Laser diode)	
When ordering, specify	Basic Sensitivity	0.3 to 10 μm (3413 or 3423) or 0.5 to 10.0 μm or 0.5 to 25.0 μm (3415 or 3425)
	Selectable Channel Option	Choose up to 8 sizes from 0.3 to 25.0 μm *
	Flow Rate	28.3 LPM (1.0 CFM) (3413 or 3415) or 50 LPM (1.77 CFM) (3423 or 3425)
	Wireless Option	Denote part number ending with W
Accessories Included	Isokinetic Probe (aluminum) Nozzle Cleaning Brush Flash Memory Drive 2 Rolls Printer Paper Operator Manual Zero Count Filter	Zero Count Filter PortAll Version 2 Trial Software AC Power Cord 1 Lithium Ion Smart Battery 0.825 cm (0.325") I.D. Hytrel® Tubing Stylus for Touch Screen
	PortAll Version 2 Software Air Velocity Sensor Smart Battery Charger IQ/OQ Validation Protocol High Pressure Diffuser Sensor Flash Memory Drive MET ONE 2432 32-port Manifold	Case with Wheels and Foam Insert Lithium Ion Smart Battery Isokinetic Probe (stainless steel) Filter Scanning Probe, non-electronic 0.825 cm (0.325 inches) I.D. Hytrel Tubing USB to RS-485 or USB to RS-232 Converter Selectable 8-channel option



* Channel selections can be selected at time of order in a range from 0.3 μm to 25 μm . However 0.3 μm and 25 μm cannot be configured together.
** Battery life is estimated with these conditions: The 1.77 CFM unit sampling for 20 minutes (1 m³) sample, print record, a 5-minute hold time (simulating move to new location), then repeat this cycle. Backlight sleep time is set at 2 minutes. The 1.0 CFM unit, sample time is set at one minute, print record, a 1-minute hold time (simulating continuous sampling mode), then repeat this cycle. Backlight would remain on at all times.

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Make it simple.

Be right.

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