

# MET ONE R4803/R4805 ONLINE AIRBORNE PARTICLE COUNTERS



*Small, reliable sensor that simplifies real time, online environmental monitoring*

## Features

- Long Life Laser™ technology for superior performance
- Sensor resistant to vaporous hydrogen peroxide (VHP)
- 0.3 micron at 0.1 cfm (R4803)
- 0.5 micron at 0.1 cfm (R4805)
- 2 size channels
- RS485 serial communications

## Applications

- Cleanroom monitoring
- Inert gas sampling
- Mini-environment monitoring

Connecting remote particle counters to your computer system has never been easier than with the Met One R4803 and R4805 miniature particle counters. These counters can be mounted at many locations around the cleanroom by simply providing a vacuum source, DC power and a communication line. Breakthrough Long Life Laser technology extends the average service life of the instrumentation's laser to more than ten years for either model.

Met One R4803 and R4805 uses standard RS-485 serial communications, allowing instrument-to-instrument wiring up to 4000 feet (1220 meters). The particle counters will respond to simple ASCII command instructions including commands to START count, STOP count, REPORT count, send location number, etc. The information reported includes the status of the counters along with the particle counts in two size ranges.

A user-programmed alarm level can be set for high counts on the first channel. When high counts trigger an alarm, the LED on the counter flashes and an alarm signal is set at the connector. The alarm will automatically reset at the start of the next count cycle.

The stainless steel enclosure is compatible with most process environments. There is no fan to disturb airflows, allowing the Met One R4803 and R4805 counters to be placed close to sensitive process areas.

Good sensitivity with repeatable, low maintenance performance make the Met One R4803 and R4805 solid choices for particle monitoring in your facility. Couple this performance with continuous monitoring features of the Ultra Vision Online or Particle Vision® Online Software to provide full-time monitoring.



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EXCELLENCE IN PROCESS ANALYTICS

## Performance Specifications

<b>Minimum Threshold Setting</b>	4803	0.3 $\mu\text{m}$
	4805	0.5 $\mu\text{m}$
<b>Flow Rate</b>	0.1 cfm (2.83 L/min)	
<b>Flow Control</b>	Critical orifice; requires 18" Hg vacuum, minimum 450 mbar	
<b>Size Channels (<math>\mu\text{m}</math>)</b>	Ch 1/Ch 2	0.3, 0.5 (R4803)
	Ch 1/Ch 2	0.5, 5.0 (R4805)
<b>Light Source</b>	Laser diode (10-year MTTF)	
<b>Coincidence Loss</b>	5% at 2,000,000 particles/ft <sup>3</sup>	
<b>Inlet Pressure</b>	Ambient to 0.1" Hg vacuum	
<b>Indicators</b>	Power LED illuminates when counter is powered; Calibration/Alarms LED illuminates when sensor calibration needs checking and flashes when the count exceeds the alarm level.	
<b>Power</b>	6 VDC ( $\pm$ 10%) at < 125 mA	
<b>Alarm Output</b>	Open collector FET maximum sink current (on) 150 mA; Maximum VC voltage (off) 30 VDC	
<b>Connector</b>	DB-15 (female)	
<b>Weight</b>	0.3 kg (10.7 oz)	
<b>Tubing Connections</b>	Inlet, 0.1 cfm, 1/8" I.D. Inlet, 1.0 cfm, 1/4" I.D. Outlet, All (vacuum), 1/4" I.D.	
<b>Environment</b>	Operating	12 to 41°C (55 to 105°F) 20 to 95% relative humidity, non-condensing
	Storage	-40 to 70°C (-40 to 160°F) up to 98% relative humidity, non-condensing
<b>Accessories Included</b>	Isoprobe; DB-15 Connector; Operator's Manual	
<b>When ordering, specify</b>	0.3 $\mu\text{m}$ (R4803) or 0.5 $\mu\text{m}$ (R4805)	
<b>Optional Accessories</b>	Switching Power Supply Power Adapter Ultra Vision Online Software Particle Vision Online Software	



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