Met One

Monitor multiple remote process areas
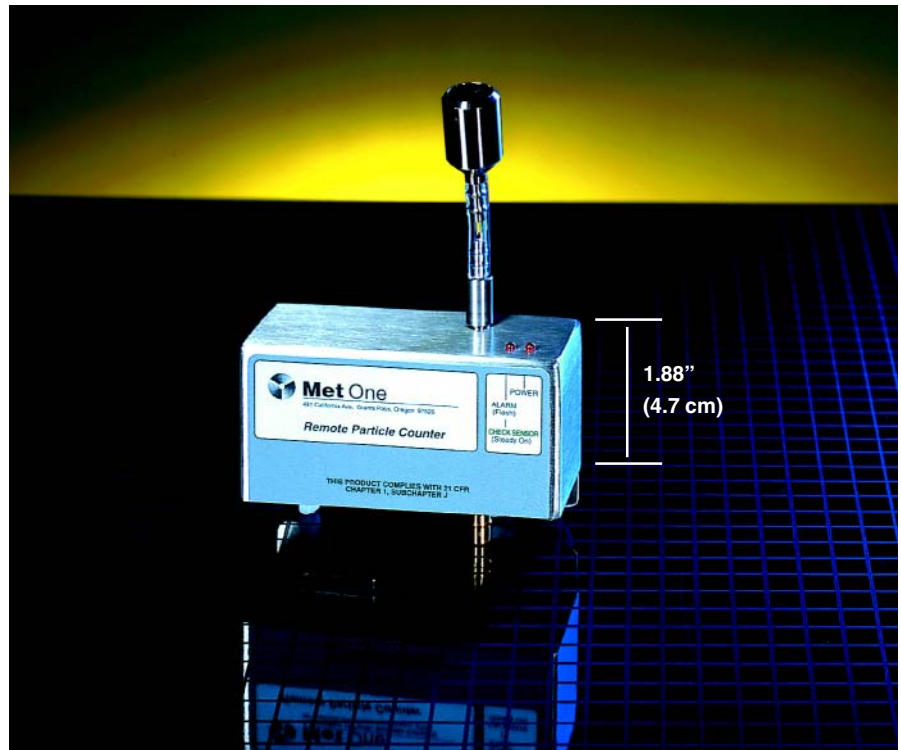
Model R4903/R4905 Remote Airborne Particle Counters

FEATURES
- Long Life Laser technology for superior performance
- 0.3 micron at 0.1 cfm (R4903) 0.5 micron at 0.1 cfm (R4905)
- 2 size channels
- 4–20 mA output
- Delayed alarm

APPLICATIONS
- Cleanroom Monitoring
- Inert Gas Sampling
- Minienvironment Monitoring

Connecting remote particle counters to your SCADA system has never been easier than with Met One's Model R4903 and R4905 miniature particle counters. Their small size allows them to be mounted much nearer to critical monitoring areas at many locations around the cleanroom by simply providing a vacuum source, DC power and a communication line. Plus, breakthrough Long Life Laser technology extends the average service life of the instrumentation's laser to more than ten years.

The R4903 and R4905 uses the industry standard 4–20 mA interface. Loop current is driven by voltages between 15 and 30 VDC. The sensors use an RS-485 serial interface for programming count time, hold time, alarm level, alarm delay, and scaling for the 4–20 mA output. The programming is retained through power off and on cycles.

A user-defined alarm level can be set for high counts on channel one. When high counts trigger an alarm, the LED on the counter flashes and an alarm signal is set at the connector. The alarm can be set to trip after the level is exceeded the first time or after the second through ninth time counts exceed the level. The alarm automatically resets at the start of the next count cycle.

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Model R4903/R4905 Remote Particle Counters

SPECIFICATIONS

Size Channels (µm)	R4903	Ch 1/Ch 2	0.3, 0.5
	R4905	Ch 1/Ch 2	0.5, 5.0

Flow Rate — 0.1 cfm (2.83 L/min)

Flow Control — Critical orifice; 18" Hg (450 mbar) vacuum minimum

Light Source — Laser diode (10-year MTTF)

Coincidence Loss — 5% at 2,000,000 particles/ft^3

Inlet Pressure — Ambient to 0.1" Hg vacuum

Indicators — Power and Sensor/Alarm LEDs

Power — 6 VDC (± 10%) at < 125 mA

Loop Supply — 15 to 30 VDC

Output — 2 size channels; 0 mA on sensor fail or no power

Output Scaling — Program from 10 to 999,999 counts full scale

Alarm Output — Open collector FET maximum sink current (on) 150 mA; Maximum VC voltage (off) 30 VDC

Alarm Delay — 1 to 9 high count levels

Connector — DB-15 (female)

Weight — 10.7 oz (0.3 kg)

Tubing Connections — Inlet, 0.1 cfm, 1/8" I.D.
Outlet, All (vacuum), 1/4" I.D.

Environment — Operating 55 to 84°F (12 to 29°C)
20 to 95% relative humidity, non-condensing
Storage -10 to 160°F (-23 to 70°C)
up to 98% relative humidity, non-condensing

Accessories Included — Isokinetic Probe; DB-15 Connector; Operator's Manual

ORDERING GUIDE

When ordering, specify: 0.3 µm (R4903) or 0.5 µm (R4905)
Second size channel if different than standard

OPTIONAL ACCESSORIES

Switching Power Supply
Wall Plate Power Adapter
Power Adapter
Sample or Vacuum Tubing

ISO 9001:2000
Cert. No. FM 56449

HACH ULTRA ANALYTICS