Met One

Small sensors for monitoring critical areas
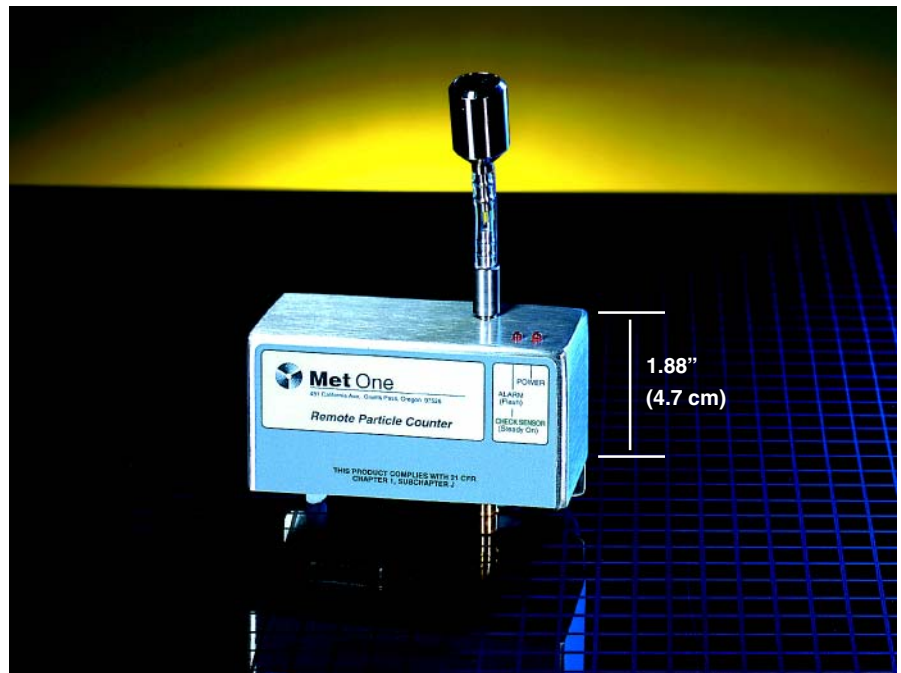
Model R4815/R4915 Remote Airborne Particle Counters

FEATURES
- Long Life Laser technology for superior performance
- 0.5 and 5.0 microns
- 1.0 cfm flow rate
- 2 size channels
- RS-485 serial communications (R4815)
- 4–20 mA output (R4915)

APPLICATIONS
- Cleanroom Monitoring
- Inert Gas Sampling
- Minienvironment Monitoring

1.88"
(4.7 cm)

Connecting remote particle counters to your computer (Model R4815) or SCADA (Model R4915) system has never been easier than with Met One's miniature particle counters. These counters can be mounted at many locations around a cleanroom by simply providing a vacuum source, DC power and a communication line.

The Model R4815 uses the standard RS-485 serial communications, allowing instrument-to-instrument wiring up to a total length of 4000 feet (1220 meters), while the Model R4915 uses the industry standard 4–20 mA interface, allowing unlimited instrument-to-instrument wiring length. In the Model 4915, loop current is driven by voltages between 15 and 30 VDC and the sensor uses 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.

For both models, the counter responds to simple ASCII command instructions, including START count, STOP count, REPORT count, send location number, etc. The information reported includes the status of the counter along with the particle counts in two size ranges. For a graphical or spreadsheet display of data, add the continuous monitoring features of Particle Vision® Online and CIMScan® Software.

For both models, 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. Plus, breakthrough Long Life Laser technology extends the average service life of the instrumentation's laser to more than ten years for either model. The stainless steel enclosure is compatible with most process environments. There is no fan to disturb airflows, allowing the counters to be placed close to sensitive process areas.

Model R4815/R4915 Remote Particle Counters

SPECIFICATIONS

Size Channels (μm)	0.5, 5.0
Flow Rate	1.0 cfm (28.3 L/min)
Flow Control	Critical orifice; requires 18″ Hg (450 mbar) vacuum minimum
Light Source	Laser diode
Coincidence Loss	5% at 400,000 particles/ft^3
Inlet Pressure	Ambient to 0.1″ Hg vacuum
Indicators	Power and Sensor/Alarm LEDs
Power	6 VDC (± 10%) at < 125 mA
Alarm Output	Open collector FET maximum sink current (on) 150 mA; Maximum DC voltage (off) 30 VDC
Connector	DB-15 (female)
Weight	10.7 oz (0.3 kg)

Tubing Connections

	Inlet	1.0 cfm, 1/4″ I.D.
	Outlet	1/4″ I.D.

Environment

	Operating	55 to 84°F (12 to 29°C)
		20 to 95% relative humidity, non-condensing
	Storage	-40 to 160°F (-40 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: Model R4815 or Model R4915
Scaling for 4–20 mA output (Model R4915)

OPTIONAL ACCESSORIES

Switching Power Supply
Power Adapter
Wall Plate Power Adapter
Vacuum Pump
Sample or Vacuum Tubing
Particle Vision Online Software
CIMScan Software

ISO 9001:2000
Cert. No. FM 56449

HACH ULTRA ANALYTICS