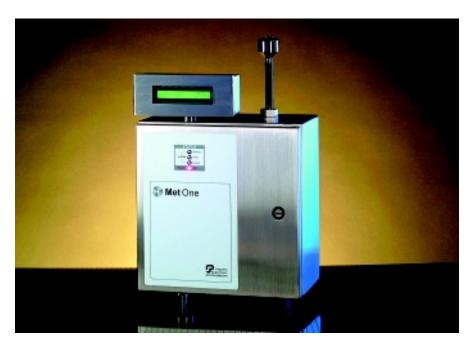# Met One

Solid performance for tough environments

Model R2313/R2315 Remote Airborne Particle Counters

FEATURES
- Long Life Laser technology for superior performance
- 0.5 microns (R2315) or 0.3 microns (R2313) minimum sensitivity
- 2 size channels
- Built-in pump with 28.3 L/min (1.0 cfm) flow rate
- Unique replaceable sensor module for maximum service
- 100% duty cycle for pump
- Splash-tight NEMA-rated enclosure
- 316L Stainless Steel enclosure
- Optional remote display
- Interfaces with Ultra Vision Online Facility Monitoring Software

APPLICATIONS
- Pharmaceutical filling suites
- Isolators in sterility test labs
- Production isolators for pharmaceutical and food industries
- Automotive paint spray booths

If your application demands frequent or continuous particle counting and operability in a tough environment, choose the Met One Model R2313 or R2315. A durable exterior and NEMA-rated enclosure make the R2313/R2315 ideal for environments with frequent exposure to chemicals. The exterior metal components, including the enclosure, are manufactured from 316L Stainless Steel (A4) for superior chemical resistance to common disinfectants and mild chemicals. Extensive use of gaskets and O-rings prevent intrusion of dust and fluids into the counter enclosure. Plus, breakthrough Long Life Laser technology extends the average service life of the instrumentation's laser to more than ten years for either model, enhancing reliability.

These counters use a sample rate of 28.3 L/min (1.0 cfm) to give excellent statistical evaluations of cleanroom environments such as ISO Class 5 (FS209E Class 100). The built-in internal vacuum pump provides a continuous cycle for uninterrupted sampling. The laser diode light-scattering sensor profiles particles at minimum sensitivities of either 0.3 microns (Model R2313) or 0.5 microns (Model R2315). A modular sensor installation permits quick removal and exchange in the event of contamination or for rapid calibration.

Mount the display module directly on a cabinet or position it up to 15 meters (50 feet) from the counter for better viewing. The standard 4–20 mA communications output allows positioning of the counter up to 305 meters (about 1000 feet) from the data acquisition computer. The 2315 model, available with optional RS-485 communications, allows positioning of the instrument up to about 1219 meters (4000 feet) away and connection of multiple counters. The typical R2313/R2315 system provides two channels of count sizes; specify when ordering up to six channels. Built to last, the R2313/R2315 performs in demanding environments and continuously handles tough jobs.

Met One

Model R2313/R2315 Remote Particle Counters

SPECIFICATIONS	Size Channels (µm)	Standard	2 ch	0.5, 5
			2 ch	0.3, 0.5
		Optional	4 ch	0.3, 0.5, 1.0, 5.0
			4 ch	0.5, 1.0, 5.0, 10.0
			5 ch	0.3, 0.5, 1.0, 5.0, 10.0
			5 ch	0.5, 1.0, 2.0, 5.0, 10.0
			6 ch	0.3, 0.5, 1.0, 2.0, 5.0, 10.0
			6 ch	0.5, 1.0, 2.0, 3.0, 5.0, 10.0

	Flow Rate	28.3 L/min (1.0 cfm)
	Number of Size Channels	2 standard; 4, 5 or 6 optional
	Light Source	Laser diode with a 10-year Mean Time to Failure (MTTF)
	Remote Display (optional)	16-character LCD
	Sample/Hold Times	1 second to 24 hours
	Alarm Counts	1 to 9,999,999 counts
	Locations	Up to 250, number appears on serial record
	Coincidence Loss	Less than 5% at 14,120 particles/L (400,000 particles/ft^3)
	Sensor Type	Light-scattering laser diode
	Power	24 VDC ±10%, 50 watts average, 4.5 Amps peak
	Enclosure	316L Stainless Steel, splash-tight (NEMA 4X / IP66 type)
	Size (excluding display)	30.5 cm wide x 30.5 cm high x 15.25 cm deep (12" x 12" x 6")
	Weight	9.08 kg (20 lbs)
	Environment	Operating 12 to 29°C (55 to 84°F)
		20 to 95% relative humidity, non-condensing
		Storage -23 to 70°C (-70 to 160°F)
		up to 98% relative humidity, non-condensing
	Accessories Included	Purge Filter; Direct Mount Isokinetic Probe; Operator Manual

ORDERING GUIDE	When ordering, specify:	
	Minimum Sensitivity	0.3 µm (R2313) or 0.5 µm (R2315)
	Size Channels	Refer to specifications above
	Direction of Wire Entry	Rear
	Display	Remote, cabinet top or none
	Output	2313 4–20 mA output
		2315 4–20 mA output OR
		RS-232 programming/RS-485 reporting

OPTIONAL ACCESSORIES	Isokinetic Probe
	Purge Filter
	RS-232 to RS-485 Converter
	Ultra Vision Online Software

ISO 9001:2000

HACH ULTRA ANALYTICS

CE

Cert. No. FM 56449

AMERICAS • 481 California Avenue, Grants Pass, Oregon 97526 USA, Toll Free: 1 800 866 7889, Tel: 1 541 472 6500, Fax: 1 541 479 3057
EUROPE / ASIA • 6, route de Compois, C.P. 212, CH-1222 Vésenaz, Geneva, Switzerland, Tel: 41 22 855 91 00, Fax: 41 22 855 91 99
WEB SITES • www.hachultra.com • www.anatel.com • www.particle.com