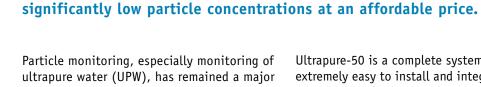
# Anatel

# Ultrapure-50 Particle Counter

Particle Counting for Electronics Manufacturing



Take your DI water plant monitoring one step further—the Anatel Ultrapure-50 Liquid Particle Counter measures small particles in

Particle monitoring, especially monitoring of ultrapure water (UPW), has remained a major hurdle for the semiconductor manufacturing industries. Advances in device design rules require ever decreasing particle levels in process fluids. Therefore, manufacturers need to measure not just small particle size but small particles at significantly low concentration levels.

Engineered to promote a low false count rate at an affordable price, Anatel's Ultrapure-50 provides a fully-integrated solution for 0.05 and 0.1 micron UPW monitoring. Whether your application involves troubleshooting at process point of use or simply monitoring critical locations within your facility's ultrapure water plant, the Ultrapure-50 excels in the lowest particle concentrations.

The Ultrapure-50 combines robust optomechanics, counting and communication electronics, and a unique flow control system all within one instrument to provide unparalleled performance. In high-pressure applications, such as DI water plant monitoring, the total system flow rate is in excess of 1.0 L/min. This produces extremely fast clean up and recovery times with excellent flow regulation, even with dynamic inlet pressures.

Ultrapure-50 is a complete system that is extremely easy to install and integrate with your existing facility monitoring system (FMS) or building management system (BMS). Alternatively, Ultrapure-50 can be used as a standalone instrument and is compatible with a range of software packages.

Particle counting often complements Total Organic Carbon (TOC) measurement and Anatel is the industry standard for TOC monitoring in the semiconductor and flat panel display industries. Anatel's TOC Analysis Systems is a family of modular components that can be custom-combined for any water system. Now, with the addition of particle counting, Anatel takes instrumentation one step further to ensure increased efficiency and yield in your high purity water distribution system.

#### **KEY FEATURES**

- 0.05 and 0.1 µm standard particle sizes
- 4-20 mA analog output connection
- High flow rate-ultra fast clean up time
- Integrated solution with low maintenance
- Superior flow regulation-"set and forget"
- Laser power diagnostic
- Particle counting software available
- Calibration fully traceable to NIST standards





### PERFORMANCE SPECIFICATIONS

 $\begin{array}{lll} \mbox{Size Channels ($\mu$m)} & 0.05, \, 0.1 \\ \mbox{System Flow Rate} & >1 \, \mbox{L/min} \\ \mbox{Sample Flow Rate} & 10 \, \mbox{mL/min} \\ \end{array}$ 

(regulated for inlet pressure between 30 and 100 psi)

Light Source Laser Diode 830nm

Inlet Pressure 100 psig maximum (690 kPa)

7.0 psig minimum

Temperature Operating 15°C to 30°C Sample 15°C to 30°C

#### PHYSICAL SPECIFICATIONS

Power Consumption 100 to 250 VAC, 50/60 Hz Power Consumption 90 VA maximum (0.8 A at 100 V)

I/O Connections Analog Opto-isolated 4-20 mA output (2 channels)

RS-232 Serial connection for set-up

Electrical I/O connections are located on bottom of unit, with protective cover

Display 2 channels

Indicators Power, Laser Condition, Cell Condition Fluid Connections SS 1/4" Swagelok® (inlet and outlet)

External flowmeter

Enclosure Aluminum alodine with painted external finish
Size 305 L x 203 W x 190.5 mm D (12" x 8" x 7.5")

Relative Humidity 90% maximum, non-condensing

## **ACCESSORIES**

Included Power Supply Unit

1/4" Nylon Sample and Drain Tubing

Power Cord Operator's Manual

