# AEROTRAK+ REMOTE AIRBORNE PARTICLE COUNTERS 7000 SERIES

AeroTrak<sup>®</sup>+ Remote Airborne Particle Counters (APCs) are ideal for installation in fixed locations where external vacuum systems are used, typical to but not limited to pharmaceutical facilities. They offer the reliability and no-hassle operation cleanroom professionals require for monitoring manufacturing environments. The proactive identification and early-warning of adverse trends reduces risk while decreasing product waste and manufacturing costs. With the AeroTrak+ Remote APCs, have critical data at your fingertips – without worry of data interruption or potential data loss.



+ Reliable operation with heavy industrial electrical immunity compliance

AEROTRAK"

UNMATCHED

5 YEAR LASER

NARRANT

- + Rapid setup and unit configuration using standard USB-C cable
- + ISO 14644-14 suitability for use classified
- + Vaporized hydrogen peroxide (VHP) resistant
- + Sealed inlet prevents accidental ingress of cleaning solutions
- + Advanced FMS driver auto discovers sensors reducing integration time

#### **Features & Benefits**

- + Reliable laser technology backed by the industry's longest warranty (five years)
- + Secure, long-term collection and storage of critical manufacturing data
- +Wireless enabled with minimal infrastructure-reducing installation costs and complexity
- + Long range wireless enabled with minimal infrastructure using LoRaWAN architecture

**CHOOSE THE RIGHT MODEL FOR YOUR NEEDS** 

+ Predictive instrument maintenance alerts

1 CFM (28.3 LPM)

0.1 CFM (2.83 LPM)

1 CFM (28.3 LPM)

RECOMMENDED MANUFACTURING **CHANNEL SIZE OPTIONS** MODEL FLOW RATE APPLICATION 0.2, 0.3 µm 7201 0.1 CFM (2.83 LPM) Semiconductor 0.2, 0.3, 0.5, 1.0 μm 0.3, 0.5 µm Semiconductor, Electronics, 0.3, 0.5, 1.0, 5.0 μm 7301 0.1 CFM (2.83 LPM) Aerospace, Optics, Automotive, 0.3, 0.5, 5.0, 10.0 μm Clean Manufacturing 0.3, 0.5, 1.0, 5.0, 10.0, 25.0 μm

0.3, 0.5 µm

0.5, 5.0 μm 0.5, 1.0, 5.0, 10.0 μm

0.5, 5.0 µm

0.3, 0.5, 1.0, 5.0 μm

0.3, 0.5, 5.0, 10.0 μm

0.5, 5.0, 10.0, 25.0 µm

0.5, 1.0, 5.0, 10.0 µm

0.5, 5.0, 10.0, 25.0 μm

0.5, 1.0, 5.0, 10.0, 25.0 µm

Semiconductor, Electronics

Electronics, Aerospace, Optics,

Pharmaceutical, Electronics,

Clean Manufacturing

Aerospace, Optics, Automotive,

Automotive, Clean Manufacturing

## DON'T HAVE AN EXTERNAL VACUUM SYSTEM?

Check out AeroTrak+ Remote APCs with Pumps-designed for use in facilities with limited infrastructure, typical to electronics, semiconductor, and industrial manufacturing facilities



7310

7501

7510

# **SPECIFICATIONS**

# AEROTRAK+ REMOTE AIRBORNE PARTICLE COUNTERS 7000 SERIES

### SPECIFIC MODEL SPECIFICATIONS

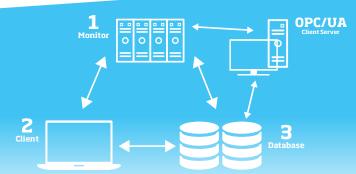
|                           | 7201   | 7301   | 7310   | 7501   | <b>7510</b><br>VHP resistant<br>model available   |
|---------------------------|--|--|--|--|---|
| Size range                | 0.2 to 1 µm  | 0.3 to 25 µm   |  | 0.5 to 25 µm   |   |
| Flow Rate                 | 0.1 CFM (2.83 L/min) w   | rith ± 5% accuracy   | 1 CFM (28.3 L/min)<br>with ± 5% accuracy                       | 0.1 CFM (2.83 L/min)<br>with ± 5% accuracy   | 1 CFM (28.3 L/min)<br>with ± 5% accuracy  |
| Particle<br>Channel Sizes | 0.2, 0.3 μm<br>0.2, 0.3, 0.5, 1.0 μm                                       | 0.3, 0.5 μm<br>0.3, 0.5, 1.0, 5.0 μm<br>0.3, 0.5, 5.0, 10.0 μm<br>0.3, 0.5, 1.0, 5.0, 10.0,<br>25.0 μm | 0.3, 0.5 μm<br>0.3, 0.5, 1.0, 5.0 μm<br>0.3, 0.5, 5.0, 10.0 μm | 0.5, 5.0 μm<br>0.5, 1.0, 5.0, 10.0 μm<br>0.5, 5.0, 10.0, 25.0 μm<br>0.5, 1.0, 5.0, 10.0, 25.0 μm | 0.5, 5.0 μm<br>0.5, 1.0, 5.0, 10.0 μm<br>0.5, 5.0, 10.0, 25.0 μm                            |
| Size Resolution           | <15% @ 0.3 µm<br>(per ISO 21501-4)   | <15% @ 0.5 μm<br>(per ISO 21501-4)   |  |  |   |
| Counting Efficiency       | 50% at 0.2 μm; 100%<br>for particles > 0.3 μm<br>(per ISO 21501-4 and JIS) | 50% at 0.3 μm; 100% for particles > 0.45 μm<br>(per ISO 21501-4 and JIS)                               |  | 50% at 0.5 µm; 100% for particles > 0.75 µm<br>(per ISO 21501-4 and JIS)                         |   |
| Concentration Limit       | 4,860,000 pa<br>(172,000,000/m³) @ 10                                      |  |  | 4,860,000 particles/ft <sup>3</sup><br>(172,000,000/m <sup>3</sup> )<br>@ 10% coincidence loss   | 486,000 particles/ft <sup>3</sup><br>(17,200,000/m <sup>3</sup> )<br>@ 10% coincidence loss |

#### FOR ALL MODELS

| Light Source          | Laser Diode   | Status Indicator     | Power, service, sampling and Ethernet   |  |
|-----------------------|---|----------------------|---|--|
| Laser Warranty        | Five Years  |                      |   |  |
| Instrument Warranty   | -   |                      | Normal open dry contact rated<br>0 to 60V AC/DC 1 Amp   |  |
| Calibration Frequency | One Year  | Data Storage         | 250,000 sample records,<br>15 minutes of 1 second data  |  |
| Vacuum Source         | External vacuum<br>> 15 in. (38.1 cm) of Hg   | -                    |   |  |
| Communication         | Ethernet (TCP/IP) Modbus RTU  | Dimensions (HxWxD)   | 2.9 in. x 4.5 in. x 2.4 in<br>(7.4 cm x 11.4 cm x 6.1 cm)   |  |
| Wireless Option       | Wireless Option Available   | Weight               | 1.3 lb (0.59 kg)  |  |
| External Surface      | Stainless steel   | Power                | Power-over-Ethernet (PoE compliant<br>with IEEE 802.3af) or 9-24 VDC  |  |
| Analog Output Options | 3 Channels 4-20 mA output:  |                      |   |  |
|                       | 2 User selectable particle sizes-linear<br>or log scale 1 Status channel  | Storage Range        | 14° to 122°F (-10° to 50°C) /<br>Up to 98% noncondensing  |  |
| Standards             | CE, JIS B9921, ISO 21501-4 Included Accessories   |                      | Power and alarm relay connector,  |  |
| Operating Range       | 50° to 104°F (10° to 40°C) /<br>20% to 95% noncondensing  |                      | operating manual and configuration<br>utility on USB flash drive  |  |
| Zero Count            | <1 count / 5 minutes at the<br>95% UCL (per ISO 21501-4 and JIS)  | Optional Accessories | Power supply, isokinetic inlets, purge<br>filter, sample tubing, vacuum tubing<br>and remote mounting bracket |  |
| Sampling Frequency    | 1 second to 24 hours<br>Standard sample period data collection<br>plus parallel per second sampling to<br>detect adverse trends | Suitability for Use  | ISO Class 3 (0.1 µm)  |  |

# NO INTERRUPTIONS. NO-HASSLE COMPLIANCE.

Learn more at www.tsi.com/reliablesystem



UNDERSTANDING, ACCELERATED

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