

IsoAir[®] 310P

Aerosol Particle Sensor



The IsoAir 310P Aerosol Particle Sensor makes it easy to monitor air in remote locations or in areas with process restraints. Real-time particle monitoring gives quick notification of particle anomalies, detecting 0.5 and 5.0 μm for GMP and FDA compliance. A central vacuum is not needed to operate the particle sensor, and it features a built in “low noise” blower together with a Hepa filtered exhaust. It has unparalleled performance in a chemical-resistant and easy-to-disinfect 316L box, and the passivated stainless steel surface has well defined microbial control characteristics. The clean, reliable internal pump lowers installation costs and the need for costly vacuum system connections; the instrument is available with a wide range of communications protocol such as Ethernet, Modbus, OPC, Wifi, Analog 4-20mA for full compatibility with the existing monitoring system.

BENEFITS

- **Ensure compliance**
 - Real-time particle monitoring gives quick notification of particle anomalies
 - Queues 3,000 samples in the event of computer system failure
 - Detects 0.5 and 5.0 μm for GMP and FDA compliance
 - Ethernet, Modbus, OPC and 4-20 mA outputs meet 21 CFR Part 11 regulations for data transmission security
 - Identifies breakdown in isolator protection
- **Increase productivity**
 - Interfaces with optional FacilityPro[®], Pharmaceutical Net or Facility Net software for comprehensive management of the cleanroom
 - Automatic paging allows rapid response to alarms
 - Optional 4-20 mA inputs allow for integration of up to three environmental input sensors
 - Easy to remove sensor simplifies calibration and service
 - Validation documentation available
- **Cost-Effective**
 - Complete monitor is easy to install
 - No central vacuum system needed
 - Rugged, chemically-resistant, easy-to-disinfect enclosure
 - Passivated stainless steel surface has well-defined microbial control characteristics
 - Diode laser reduces maintenance requirements

FEATURES

- Four standard channel sizes with 2-channel Pharmaceutical mode
- Flow rate of 1.0 CFM
- Passivated 316L stainless steel enclosure
- Pump with HEPA filtered exhaust
- Automatic shut-off for capped probe
- Compliance with ISO 21501-4 and CE standards
- Two local LEDs for status and activity
- Ethernet, MODBUS, or OPC communications

APPLICATIONS

- Pharmaceutical manufacturing area
- Isolator monitoring
- Cleanroom monitoring
- Aerospace and industrial applications
- Trend analysis
- Statistical process control

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Specifications

Channels	0.3, 0.5, 1.0 and 5.0 µm channels or can be set for two-channel mode: 0.5 and 5.0 µm
Flow rate	1.0 ft ³ /min (28.3 L/min)
Sample probe/tubing	3/8" ID; up to two meters of 3/8 inch tubing can be connected to the inlet
Vacuum source	Internal reciprocal blower is cool running long-lived with no contaminating carbon vanes. Blower output is HEPA filtered with exhaust out bottom of enclosure.
Blower shut off	Automatic if blower fails or if system detects sample probe capped while pump is on
Calibration	Calibration materials used are traceable to the US National Institute of Standards and Technology. Unit is calibrated to ISO 21501-4.
Zero count level	≤ 7.07 counts/m ³
Maximum concentration @ 10% coincidence loss	1,374,269/ft ³
Exterior surface	Passivated stainless steel (Grade 316L)
Communications	Ethernet (data, instructions); RS-232 (set-up and diagnostics only) Modbus TCP; OPC communications Optional 4-20 mA output (2 data channels plus 1 status channel) Optional 5 solid-state outputs and 3 4-20 mA inputs
Controlling software	Pharmaceutical Net, Facility Net, FacilityPro (must purchase separately)
Data security	Unalterable data; 21 CFR Part 11 compatible transfer via Pharmaceutical Net. Backup storage of 3,000 samples.
Status indicators	Ethernet Programmable Programmable: 3-color LED Activity: 1-color LED 4-20 mA Interface Laser and flow status: 3-color LED Activity: 1-color LED
Dimensions (W x D x H)	10 x 12 x 6 in (25 x 30 x 15 cm)
Weight	20 lb (9 kg)
Power	100 – 240 VAC, 1 A, 50/60 Hz universal power supply
Environment	Temperature: 39 – 95 °F (4 – 35 °C) Humidity: 5% – 95% Non-condensing Altitude: 0 – 6,562 ft (0 – 2,000 m)
Standard	Sample probe (stainless steel), probe cap and chain; spare fuse(s); tubing
Manual	IsoAir 310P Operations Manual included
Zero count filter	Included

IsoAir[®] is a registered trademark of Particle Measuring Systems, Inc.
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