

# 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  $\mu\text{m}$  for GMP and FDA compliance.

A central vacuum is not needed to operate the particle sensor. It features a built in “low noise” blower with HEPA filtered exhaust. It has unparalleled performance in a chemical-resistant and easy-to-disinfect 316L external enclosure, 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, Wifi, and analog 4-20 mA 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  $\mu\text{m}$  for GMP and FDA compliance
- Ethernet, Modbus 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 or Modbus communications

## APPLICATIONS

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

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Specifications

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

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## HEADQUARTERS

5475 Airport Blvd  
Boulder, Colorado 80301 USA  
T: +1 303 443 7100, +1 800 238 1801

Instrument Service & Support  
T: +1 800 557 6363

Customer Response Center  
T: +1 877 475 3317  
E: info@pmeasuring.com

## GLOBAL OFFICES

AUSTRIA  
T: +43 512 390 500  
E: pmsaustria@pmeasuring.com

BENELUX  
T: +32 10 23 71 56  
E: pmsbelgium@pmeasuring.com

BRAZIL  
T: +55 11 5188 8227  
E: pmsbrazil@pmeasuring.com

CHINA  
T: +86 21 6113 3600  
E: pmschina@pmeasuring.com

FRANCE  
T: +33 (0)1 60 10 32 96  
E: pmsfrance@pmeasuring.com

GERMANY  
T: +49 6151 6671 632  
E: pmsgermany@pmeasuring.com

ITALY  
T: +39 06 9053 0130  
E: pmsrl@pmeasuring.com

JAPAN  
T: +81 3 5298 8175  
E: pmsjapan@pmeasuring.com

KOREA  
T: +82 31 286 5790  
E: pmskorea@pmeasuring.com

MEXICO  
T: +52 55 2271 5106  
E: pmsmexico@pmeasuring.com

NORDIC  
T: +45 707 028 55  
E: pmsnordic@pmeasuring.com

PUERTO RICO  
T: +1 787 718 9096  
E: pmspuertorico@pmeasuring.com

SINGAPORE  
T: +65 6496 0330  
E: pmsingapore@pmeasuring.com

SWITZERLAND  
T: +41 71 987 01 01  
E: pmsswitzerland@pmeasuring.com

TAIWAN  
T: 886-3-5525300 Ext: 301  
E: pms taiwan@pmeasuring.com