

Airnet® II_s

Stainless Steel 2 Channel Particle Sensor

**ISO 14644-1:2015
COMPLIANT**



The Airnet® II_s particle sensor makes it easy and cost-effective to monitor your cleanroom. This particle sensor offers a small footprint, unparalleled performance, and data transmission capabilities while meeting the specification of ISO 21501-4 and ISO 14644-1:2015, all enclosed in a 316L Stainless Steel case.

Simple installation with one single cable, using Power Over Ethernet (PoE) Technology. Communication capabilities include Ethernet to interface with Pharmaceutical Net, Facility Net, or FacilityPro® software, OPC communications, and Modbus TCP/IP communications.

Data integrity is maintained through the use of a data queue feature that continues to gather data even if network communication is lost.

To ensure proper flow conditions and vacuum system operation, these units incorporate a Dynamic Flow Sensing system that will alarm with a 15% change in flow conditions.

For applications where decontamination using Vaporized Hydrogen Peroxide (VHP) is required, an optional VHP-compatible unit is available for a simple installation without complex valving (Airnet 510XR).

BENEFITS

- Proven technology provides reliable and accurate data
- Allows for immediate reaction to particle contamination events
- A low-cost solution for multipoint monitoring
- Interfaces with Facility Net, Pharmaceutical Net and FacilityPro Software for comprehensive management of cleanroom conditions
- A small footprint and wall mounting bracket make it easy to install in cleanrooms and mini-environments.
- A laser diode (LD) drastically reduces the need for maintenance and extends product lifecycle.
- Automatic laser shutdown reduces laser failures.
- Data queue maintains data integrity when communication is lost.
- Optional XR coating protects sensors against corrosive or oxidizing vapors in VHP sterilization processes.

FEATURES

- 2 channels
- 0.5 and 5.0 µm size range, suitable for Pharmaceutical application
- 1.0 CFM flow rate
- Interfaces with object linking and embedding (OLE) for process control (OPC) communications, Modbus communications
- Chemical-resistant 316L Stainless Steel enclosure
- Low sample point cost
- Small enough for use in remote locations
- ISO 14644-1:2015 Compliant
- ISO 21501-4 Compliant

APPLICATIONS

- Cleanroom monitoring
- Dedicated monitoring of critical locations
- Trend analysis
- Statistical process control
- Multi-location monitoring
- Isolator monitoring



Without measurement there is no control

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Specifications

	510s	510s XR
Size Range	0.5, 5.0 µm	
Flow Rate	1.0 CFM (28.3 LPM)	
Counting Efficiency	50% ± 20% for most-sensitive channel. Meets ISO 21501-4 100% ± 10% at 1.5 to 2.0 times channel one size. Meets ISO 21501-4.	
Zero Count	≤ 7.07 counts/m ³	
Maximum Concentration ¹	957,824/ft ³	
Laser Source	Diode	
Laser Classification	Class 1 per EN60825 (Internally, a Class IIIB laser is used, per EN60825)	
Exterior Surface	316L Stainless Steel	
Dimensions (H x W x L)	3.5 x 7.1 x 4.0 in (8.9 x 18.0 x 10.2 cm) without ISP and bracket	
Weight	2.4 lb (1.08 kg)	
Vacuum Connection	8 mm OD tubing	
Flow System	External vacuum required; automatic laser shutoff and alarm on 15% flow variation	
Vacuum Source	> 15 in Hg (> 410 mBar) below atm pressure	
Power	Power over Ethernet 48 VDC via a PoE router	
Communication Connectors	Ethernet (Particle Measuring Systems proprietary protocol, OPC, Modbus TCP) RS-232 (configuration and diagnostic tool only, no data)	
Status Indicators	Programmable status (two-color LED), Activity (one-color LED)	
Calibration	Calibration materials used are traceable to the National Institute of Standards and Technology (NIST) and meet ISO 21501-4 requirements. Optional ISO 17025 calibration available.	
Environment	Temperature: 4 – 35 °C (32 – 95 °F) Humidity: 5 – 95% non-condensing relative	
Complies with	EU RoHS, ISO 21501-4, ISO 14644-1:2015	



Airnet II with wall mounting bracket



316L Stainless Steel Wall Mounting Bracket, included

¹ 10% coincidence loss at maximum concentration. Airnet[®] and FacilityPro[®] are registered trademarks of Particle Measuring Systems, Inc. All other trademarks are the property of their respective owners. Particle Measuring Systems, Inc. reserves the right to change specifications without notice. © 2016 Particle Measuring Systems, Inc. All rights reserved.

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