IsoAir® Pro-E
Remote Particle Counter

Effective and flexible particle counter meeting global standards and leading particle monitoring system integration

Without measurement there is no control

The IsoAir® Pro-E Remote Particle Counter uses the latest technologies to simplify cleanroom monitoring into a simple but powerful package that meets global regulations. Data from the instrument can be incorporated into either Particle Measuring Systems' FacilityPro® Monitoring System or Facility Net software, with the option of third-party communications via Modbus TCP/IP or optional PMS TCP/IP protocols.

Using specialized coatings, the internal flow path is resistant to Vaporized Hydrogen Peroxide (VHP). Additionally, the robust 316L stainless steel enclosure is liquid-resistant with an IP65 rating.

The quick release mounting bracket stores essential sensor data such as the IP address at the point of measurement, reducing the time and complexity of unit installation after calibration or servicing. The Isokinetic Sampling Probe (ISP) can be mounted directly to the inlet, extended from the particle sensor with rigid stainless steel tubing, or remotely positioned with flexible tubing in virtually any installation. This remote particle sensor is "plug-n-play" with no complex re-programming required.

The IsoAir Pro-E Remote Particle Counter has its own blower, eliminating the need for an external vacuum, and uses Power over Ethernet (PoE) to combine communications and power into a single connection.

BENEFITS

- Quick, real-time alerts of contamination issues
- Effective component of a Contamination Control Strategy
- Trustworthy with minimal risk of data loss, saving 3,000 samples to protect your data in the event of communications outage
- Interfaces with Particle Measuring Systems' FacilityPro SCADA NG, Pharmaceutical Net Pro or Facility Net software for comprehensive data management
- Quick release mounting bracket simplifies the calibration and servicing process
- Reduced installation time and reduced risk of errors with data saved in mounting bracket
- Cost effective cleanroom monitoring: No central vacuum system required
- Chemically resistant IP 65 rated stainless-steel enclosure
- Durable laser diode reduces long-term maintenance time and costs
- Flexibility on ISP mounting increases installation options and reduces installation costs

FEATURES

- VHP resistance
- Power over Ethernet (PoE)
- 2 - 8 selectable channel sizes and 2-channel Pharmaceutical mode
- Flow rate of 1.0 CFM
- IP 65 rated 316L stainless steel enclosure
- Built in blower with HEPA-filtered exhaust
- Automatic shut-off for capped probe
- Compliance with ISO 21501-4:2018 and CE standards, optional ISO 17025 calibration
- Two local LEDs for status and activity
- Modbus TCP/IP or optional PMS TCP/IP communications

APPLICATIONS

- Particle monitoring system for pharmaceutical manufacturing area
- Isolator particle monitoring
- Cleanroom particle monitoring system
- Aerospace and industrial applications

Channel Options	2 - 8 configurable channels from 0.3 to 25.0 µm. 2-channel Pharmaceutical Mode for 0.5 and 5.0 µm.
Flowrate	1.0 CFM ± 5% (28.3 LPM)
Vacuum Source	Internal blower is quiet, cool-running, long-lived, with no contaminating carbon vanes. Pump output is HEPA-filtered, and discharged from the bottom of the enclosure.
Pump Shutoff	An automatic shutoff activates if the blower fails, or if the system detects that the probe cap is on the sample probe while running. The system will automatically try to restart based on the used-defined configuration.
Calibration	Calibration materials used are traceable to the US National Institute of Standards and Technology (NIST). Unit is calibrated to ISO 21501-4:2018 requirements. ISO 17025 calibration is optional.
Zero Count Level	≤ 7.07 counts/m^3
Maximum Concentration[1]	> 42,924,662 particles/m^3
Exterior Surface	Stainless steel (Grade 316 L)

Communications	Ethernet communication via:
	    - Modbus TCP/IP, or
	    - PMS TCP/IP (optional)

Controlling Software	FacilityPro processor with any of the following PMS-provided software:
	    - FacilityPro SCADA
	    - PharmaceuticalNet Pro
	    - FacilityPro SMART
	Facility Net software
	Modbus TCP/IP client software

Data Security	Unalterable data. 21 CFR Part 11 compatible transfer to PMS-provided software. Backup storage of 3,000 samples, including flow data (volume, status, etc).
Status Indicators	Ethernet Status: Three-color LED Programmable Activity: One-color LED
Dimensions (w x h x d)	8.5 x 7.5 x 4 in (21.6 x 19.1 x 10.2 cm)
Weight	8.1 lbs (3.67 kg)

Power	- PoE 48 VDC, IEEE 802.3bt, Type 3, 60W level
	- Optional external AC to DC single port POE power supply adaptor:
	    Input: 100 - 240 V~, 1.5 A, 50 - 60 Hz
	    Output: 56 VDC, 0.535A, IEEE802.3bt compliant
	- Optional 8-port PoE router

Laser Classification	Class 1, complies with US 21 CFR 1040.10 and EN60825-1. An internal, enclosed Class 3B laser is used per EN60825-1.

[1] Less than 10% coincidence loss at maximum recommended ambient concentration.