IsoAir® Pro-Plus

Remote Particle Counter

A compact, user-friendly variable channel remote particle counter, designed for minimum downtime and multiple option flexibility

Without measurement there is no control

The IsoAir® Pro-Plus 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.

The robust 316L stainless steel enclosure is liquid-resistant with IP65 and NEMA 4X ratings. 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-Plus Remote Particle Counter has its own blower, eliminating the need for an external vacuum, and uses either 100 - 240 VAC or 24 VDC input power.

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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
- Improved connectivity and ease of use
- 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 and NEMA 4X rated 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
- 24 VDC and 100 - 240 VAC input power
- 2 - 8 selectable channel sizes and 2-channel Pharmaceutical mode
- Flow rate of 1.0 CFM
- IP65 and NEMA 4X 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
- Optional digital output and analog inputs and outputs
- Optional wireless communication

APPLICATIONS

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

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Specifications

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 user-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) - Four (4) 4-20 mA inputs, 24 VDC nominal (optional) - Three (3) 4-20mA output: Two (2) for particle data, one (1) for alarm indication (optional) - Five (5) Solid State Relay outputs, 48 V, 0.5 A (optional)
Controlling Software	FacilityPro processor with any of the following PMS-provided software: - FacilityPro SCADA NG - Pharmaceutical Net Pro - FacilityPro SMART NG Facility Net software Modbus TCP/IP client software
Wireless (Optional)	WiFi 802.11b/g, WPA, WPA2, WEP
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: Two-color LED Programmable — Activity: One-color LED
Dimensions (w x h x d)	11.7 x 10.2 x 5.0 in (29.7 x 26.0 x 12.6 cm)
Weight	8.8 lb (4.0 kg)
Power	AC: 100 - 240 VAC 50/60Hz, 1.15 A DC: 24 VDC ± 10% AC input voltage fluctuation shall not exceed +/-10%
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.

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

www.pmeasuring.com
info@pmeasuring.com

PARTICLE MEASURING SYSTEMS®
a spectris company

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: pmssrl@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: pmssingapore@pmeasuring.com

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

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

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