

# IsoAir<sup>®</sup> 310P

## Aerosol Particle Sensor



The IsoAir 310P Aerosol Particle Sensor makes aerosol monitoring easy and cost-effective. It has unparalleled performance in a rugged, chemical-resistant, and easy-to-disinfect 316L stainless steel box. The clean, reliable internal pump lowers installation costs and the need for costly vacuum system connections.

### FEATURES

- 4 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
- Optional 4-20 mA output
- Ethernet, MODBUS, or OPC communications
- Optional 4-20 mA input and solid state contact outputs for remote status indication



### 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 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 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 3 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

### APPLICATIONS

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

Without measurement there is no 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 <sup>3</sup> /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 <sup>3</sup>  |
| Maximum concentration @ 10% coincidence loss | 1,374,269/ft <sup>3</sup>   |
| Exterior surface                             | Passivated stainless steel (Grade 316L)   |
| Communications                               | Ethernet (data, instructions); RS-232 (set-up and diagnostics only)<br>Modbus TCP; OPC communications<br>Optional 4-20 mA output (2 data channels plus 1 status channel)<br>Optional 5 solid-state outputs and 3 4-20 mA inputs |
| Controlling software                         | Pharmaceutical Net, Facility Net (must purchase separately)   |
| Data security                                | Unalterable data; 21 CFR Part 11 compatible transfer via Pharmaceutical Net.<br>Backup storage of 3,000 samples.  |
| Status indicators                            | Ethernet Programmable                      Programmable: 3-color LED<br>Activity: 1-color LED<br>4-20 mA Interface                      Laser and flow status: 3-color LED<br>Activity: 1-color LED                             |
| Dimensions (w, h, d)                         | 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)<br>Humidity: 5% – 95% Non-condensing<br>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  |

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