AIM3000 Series
Continuous Dust Monitor
Filter Leak Alarm

AIM3000 continuous dust monitor is an accurate dust concentration measuring system with advanced leak detection capabilities. It continuous real-time measurement and average analysis and recording of dust concentration and gives out early warning of leak for filters and process control. It can be used on all types of dust collectors/bag filters and has a special sensor designed for ESP (Electrostatic Precipitator).

Features & Benefits

- Continuously monitor and maintain filter or ESP efficiency
- Comply with US and International EPA regulations
- Simple absolute output or correlate to mg/m³ or g/ft³
- Prevent the escape of valuable or hazardous powders
- Low-cost switch with relay output only for leak alarm

Application for Dust-Collecting Equipment and Others:

Cement Factories
- For coal ash and other raw materials.
- For cement and concrete products.
- For kilos, AQC (Air-quality Control) systems, and other equipment.
- For sing- and fly ash.

Steel Plants
- For steel sintering.
- For casting.
- For coke ovens.
- For recycling-related facilities such as those for waste disposal of plastics.

Chemical Factories
- For canalization.
- For smoke removal.

Coal-fired Power Plants
- For coal prepare
- For ESP control.
- For fly ash

Waste incineration Plants
- For monitoring the environment.
- For incinerators.
- For fusion furnaces.
- For high-temperature incinerators used to cut emissions such as dioxins.

Rubber and Carbon Factories
- For monitoring of dust accumulation in ducts.
- For handling raw materials.

Fertilizers Plants
- For preventing mixture of fertilizers.

Spice and Paint Factories
- For traceability-related equipment.

Gas Extraction Equipment for Boilers
- For generators

Other Dust-collecting Equipment
OPERATION PRINCIPLE

AIM3000 series monitors utilize special AC turboelectric measurement principle, the sensor signal comes not only from solid particles contacting the sensor rod but also from those passing through nearby. This technique is very sensitive for small concentration case, which enables the use of both bare and insolated probe. The fully insolated probe is suitable for high humidity gas steam as well as for applications with high conductivity dust loadings. It’s suitable for corrosive gases or condensate and almost not affected by particle buildup on the probe.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>AIM3000</th>
<th>AIM3005</th>
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<tbody>
<tr>
<td>Measuring range:</td>
<td>Same</td>
</tr>
<tr>
<td>Particle size:</td>
<td>Same</td>
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<tr>
<td>Relay Output:</td>
<td>2 std. (SPST, 5A@240VAC)</td>
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<tr>
<td>4-20mA Output:</td>
<td>1 std. (Isolated, 12 bit)</td>
</tr>
<tr>
<td>Serial Port:</td>
<td>1 opt (RS485)</td>
</tr>
<tr>
<td>Display:</td>
<td>4 digital 7seg LED</td>
</tr>
<tr>
<td>Enclosure:</td>
<td>NEMA 4X std., other opt</td>
</tr>
<tr>
<td>Ranging:</td>
<td>Log or linear (Auto or manual)</td>
</tr>
<tr>
<td>Data averaging:</td>
<td>Standard (user adjustable)</td>
</tr>
<tr>
<td>Output scaling:</td>
<td>To mg/m³ or gr/ft³</td>
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<tr>
<td>Temperature:</td>
<td>-13F to +160F (-25 to 70C)</td>
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<tr>
<td>Power supply:</td>
<td>90 to 240VAC, 50/60Hz or 24VDC</td>
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Sensor: T31, T32, T33

- **Length**: 10, 18” std.
- **Material**: 316SS & Peek, 304SS with TFE Layer, 316SS & Ceramic
- **Mounting**: 3/4”NPT or BSP, 1-1/2”NPT or BSP
- **P @ Temp**: 13.8bar@232°C (200Psi@450°F), 13.8bar@815°C (200Psi@1500°F)
- **Housing**: IP66
- **Cable**: 300’ Max length, 450F Max temp, Special Teflon coaxial

**Optional**: Explosion proof for Ex d IIC T6

*Other Length Opt.
**Tri-Clamp or Flange opt
*** Remote system only
T34 Sensor for ESP only contact factory.