

- **NEW** upgraded remote models for temperatures between -40⁰ F and up to 1000⁰ F
- **NEW** upgraded integral models for temperatures between -40⁰ F and 200⁰ F
- Two-wire, 24VDC "loop powered", no external power needed
- Affordable and easy to install
- No setup required - power-up and use
- Auto-zero, no monthly zero or drift checks required
- 4-20 mA output for PLC input
- OPC compliant AUBURN.vision software available

The **TRIBO.d²** (Model 3400), is a two-wire, loop powered emissions monitor for high or low temperature applications, designed to detect and locate impending filter malfunctions for industrial dust collectors, large and small. These industrial hardened monitors function by processing and analyzing minute electrical currents generated when particles impact or pass nearby strategically located sensors within a wide variety of fabric filter and cartridge dust control collectors.

Triboelectric monitors track increased emissions activity before catastrophic failure to facilitate orderly and efficient collector maintenance scheduling. The **TRIBO.d²** operates by continuously transmitting data to PLCs, data loggers or any other control device capable of providing 24V loop power.

With more than thirty thousand Auburn installations, our EPA recognized triboelectric technology is increasingly replacing costly, difficult to maintain, light transmission/attenuation devices (i.e. opacity meters, laser, light scattering) with delicately aligned and frequently fouled optical lenses, which do not operate reliably below 10% opacity. The **TRIBO.d²** is virtually maintenance-free, and promptly detects and locates filter failures.

TRIBO.d² is another of a long list of triboelectric system innovations derived from our more than 30 years expertise in the field, world-wide. It is capable of handling a variety of particulate monitoring operations including particulate flow measurement for process control requirements (e.g. signaling the loss or onset of material flow); small bore process operations requiring in-line ring sensors where intrusive probes cannot be used; monitoring velocity and flow to balance pneumatic conveying



systems; air slide monitoring for process control; wet or sticky applications where jacketed, AC induction probes are required; large, multiple compartment baghouses where outlets are difficult to monitor, as well as many others.

It is simple to install and does not require any sensitivity adjustments or periodic drift or zero checks. It is the most reliable, sensitive, versatile, easy to use particulate emissions and flow monitoring system available today.

The Model 3400 can be powered by all available PLC's or in combination with **TRIBO.prevent**, a dual-level alarm panel with local display of the signal; **TRIBO.trac**, a leak location system which interfaces with the collector timer boards and coordinates with the dust signal to pinpoint the leaking row or compartment; or **TRIBO.dgd**, a data hub system controlling up to six **TRIBO.d²**'s, creating an economical and simple bag leak detection system.

For more efficient, specialized data management, **AUBURN.vision**, the only available OPC compliant triboelectric software system, integrates with virtually any factory or plant floor data management system.

Contact us at 800-255-5008 for more information or visit <http://www.auburnsys.com> and select the information section to view detailed papers, reports and case studies about triboelectric technology.

To expedite a quotation, please complete the following worksheet and fax it to us at **978-777-8820**.

Model #: 3400 - - -

ELECTRONICS

E1 Power

1. 12 to 32 VDC (at the unit)

E2 Output

1. Isolated 4-20 mA
2. Add - Prevent Dual Alarm System
3. Add - Tribotrak Leak Locator System

SENSOR

Base - System Style

I. Integral Sensor
R. Remote Sensor (Cable Required)

S1 Probe Material

1. 316 Stainless Steel
2. Carbide
9. Special

S2 Insulator Material

1. Teflon (TFE):
-40° to 300° F (-40° to 150° C); up to 30 psi
2. Ceramic (High Temperature or Pressure):
-40° to 1000° F (-40° to 540° C); up to 2000 psi
3. Teflon (TFE) with Air Purge:
-40° to 300° F (-40° to 150° C); up to 30 psi
4. Ceramic with Air Purge
5. Extended High Performance (PFA): **Standard**
-40° to 475° F (-40° to 240° C); up to 30 psi
6. Extended High Performance (PFA) with Air Purge
9. Special

S3 Probe Insertion Length*

1. ½" (1.3cm) 5. 18" (45.7cm)
2. 3" (7.6cm) 6. 30" (76.2cm)
3. 6" (15.2cm) 7. 36" (91.4cm)
4. 12" (30.5cm) 9. Special

S4 Sensor Mounting

Q. Quick Release V. Venturi (Fugitive Dust)
N. 1/2" Male NPT S. Special

Cable Length (feet)** _____ feet @ \$ _____/foot

Cable Terminals* _____

Factory Installed _____ @ \$ _____/set

or Field Kit _____ @ \$ _____/set

Extras

Manuals (one included) _____ @ \$ _____ each

Stainless Steel Tags _____ @ \$ _____ each

Set of Prints _____ @ \$ _____ each

Spare Parts Kit _____ @ \$ _____ each

Field Test Unit _____ @ \$ _____ each

\$ _____

Extras Total

*Probe length should reach approximately mid-duct; for large ducts (>72"). Contact Auburn for additional options.

**Cable and connectors are for Remote sensor only.

QUOTE INFORMATION (FOR INTERNAL USE):

Quotation Number _____ PO Number _____

Unit Price \$ _____ Number of Units _____ Total \$ _____

Delivery _____ days ARO

Price quote valid 30 days; Terms: Net 30, FOB Danvers, MA.

Signature _____ Date _____

QUOTE FOR:

Name _____

Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Telephone (_____) _____

Fax (_____) _____

PROCESS CONDITIONS

Temperature _____ ° F (C°)

Duct ID _____ inches (cm)

Solid _____

Loss _____

Pressure _____ psig (bar)

Velocity _____ f/s (m/s)

Gas _____

Comments _____

APPLICATION

Fabric Filter

Cyclone

Other

CONCERN

Environmental

Maintenance

Process/Product

SPECIFICATIONS

ELECTRONICS

Enclosure NEMA 4 / 7 / 9

Power Two-wire, isolated 4-20mA (12-32 VDC)

Operating Temperature -40° to 185° F (-40° to 85° C)

Hazardous Rating Designed intrinsically safe

Sensitivity Typical .0005gr/dscf (1mg/m³) concentration detectable

SENSOR

Remote Sensor Enclosure NEMA 4X

Wetted Metal Parts Probe - 316 Stainless Steel
All others - 303 Stainless Steel minimum grade

Insulation Extended high performance to prevent conductive bridging
Consult factory or your local representative for correct sensor

Probe Length Specify to reach approximately mid-duct or farther

Installation Weld the fitting into the pipe or duct and insert sensor

Remote Sensor Cable Coaxial Cable (for remote sensor only):
Temperature range: -60° to 400° F (-50° to 200° C)
Maximum distance: contact factory

Wiring Connections ¾ inch NPT Female Conduit Fitting

Pipe/Duct Connections ½ inch NPT Male Fitting or Quick Release Fitting

PRE-VENT DUAL ALARM SYSTEM (optional)

Enclosure NEMA 4X with window

Power 105 to 130 VAC or 210 to 260 VAC

Outputs (2) Relay contacts SPDT 5 amp @ 28 VDC or 250 VAC
100VA (4) LED indicators, 0-100% bar graph
Signal smoothing (0 to 25 sec.); (2) alarm set points (0 to 100%); (2) alarm time delays (0 sec. to 10 min.)

TRIBOTRAC LEAK LOCATOR SYSTEM (optional)

Enclosure NEMA 4X with window

Power 105 to 130 VAC or 210 to 260 VAC

Outputs Tracks up to 16 cleaning zones
(2) Relay contacts SPDT 5 amp @ 28 VDC or 250 VAC
100VA (4) LED indicators, 0-100% bar graph
Signal smoothing (0 to 25 sec.); (2) alarm set points (0 to 100%); (2) alarm time delays (0 sec. to 10 min.)

Adjustments