

The **TRIBO.dsp U3200** is an advanced and economical particulate detector for dust collector compliance, maintenance, and process applications. The U3200 is designed to monitor fabric filter baghouses, cartridge filters, cyclones, and all types of dust collection equipment. For dry solids flow applications, the U3200 can detect flow/no flow and even high or low flow conditions in pneumatic conveying, injection, or gravity fed process flow applications.

Applications for the U3200

- Emission Monitoring
 - Bag Leak Detection
 - Dust Collector Maintenance
 - Product Loss Prevention
 - Equipment Protection
 - Cyclone Overflow
- Process Monitoring
 - Process Optimization
 - Gravity Feed
 - Injection Flow
 - Material Flow Control
 - Flow/No Flow Detection



Features of the U3200

- Economical cost, superior technology
- Advanced detector for dust emissions and process flow applications
- Easily selectable alarm threshold level and time delay
- Two independent SPDT relay contacts for alarm indications with selectable fail-safe mode
- No manual zero check required

Features include self-checking electronics with a numerical LED display showing the real-time signal level, and easy-to-set alarm indicators. When installed, the U3200 monitors the process under normal operating conditions to establish a baseline. The U3200 detects changing signal levels relative to established baseline. Dual relays allow for two levels of warnings or indications which can be set for either high or low threshold exceedance, depending on the application.

TRIBO.dsp U3000 Series

Auburn's **TRIBO.dsp U3000** series of electrostatic/triboelectric bag leak detectors, emission monitors, and solids flow monitors effectively measure dust emissions and dry solids flow from a wide variety of industrial processes.

TRIBO.dsp's Working Principal

As dust particles collide with, or closely pass by a probe, charge transfers occur. **Tribo.dsp** series products detect the signal created by the changes in particulate concentration, as in the onset of a bag leak or an increase or decrease in flow. Unlike monitors that use only the DC or only the AC induction signals, thereby using only a portion of the complete electrostatic signal, **TRIBO.dsp** unified 3000 series combines the benefits of each method, providing the user with a superior reliable and repeatable signal, with electrical interference resistance - even in harsh industrial environments. They can activate operational functions such as alarms and relays or can generate continuous 4-20 mA or digital signals for trending and recording purposes.

TRIBO.dsp U3200 TM

ELECTRONICS SPECIFICATIONS	
Electronic Enclosure	Polycarbonate NEMA 4X with 3 x ½" conduit openings
Power	85 - 260VAC standard (10 - 32 VDC optional)
Power Consumption	3 Watts maximum load
Operating Temperature	-35° - 185° F (-31° - 85° C)
Humidity Range	0 - 95% relative; non-condensing
Dynamic Range	1 pA - 10,000,000 pA - standard 0.1 pA - 1,000,000 pA - optional
Resolution/Precision (pA)	1 pA standard 0.1 pA optional
Sensitivity Range	Concentrations as low as .005mg/m ³ have been detected
Output	(2) SPDT Relays, 5A @ 30VDC or 250VAC Independent alarm set-points, high or low (0 - 100%) Independent alarm delays (0 - 600 sec)
Approvals	CE Approved $\text{C}\epsilon$
SENSOR SPECIFICATIONS	
Remote Sensor Enclosure	Cast aluminum, electrostatically applied powder coating, equivalent NEMA 4X
Sensor Probe	Probe - 316 stainless steel (standard); other materials available
Wetted Metal Parts	All others - 303 stainless steel minimum grade
Insulation	Extended High Performance (PFA)- standard, -40° - 450°F (-40° - 232°C) Ceramic (High Temperature or Pressure) -40° - 1000°F (-40° - 540°C) Consult factory or your local representative for proper recommendations
Probe Insertion Length	Standard probe lengths: 3, 6, 12, 18, 30, 36 inch (7.6, 15.2, 30.5, 45.7, 76.2, 91.4 cm) (specify to reach approximately mid-duct or further)
Installation	Weld the supplied fitting into the pipe or duct and insert sensor
Remote Sensor Cable	Special coaxial cable; temperature range: -60° - 400°F (-50° - 200°C) Maximum distance: contact factory
Wiring Connections	¾ inch NPT female conduit fitting
Pipe/Duct Connections	½ inch NPT male fitting or 1" quick release ferrule (other options available)
Options	Wire-Rope Sensor; In-Line Ring Sensor; Ambient Fugitive Dust Sensor

