



The **TRIBO.dsp U3400** is the industry's first two-wire, loop powered, wide dynamic range emissions or flow monitor for both high and low temperature applications. Automatic offset/drift tracking eliminates the need for periodic manual drift or zero adjustment. Auburn's industry leading technology also provides an automatic probe contamination check standard on all **TRIBO.dsp** units. The U3400 indicates when a battery or bridging effect is detected (i.e. moisture or particulate matter accumulates on the probe). The U3400 is simple to install and requires no set-up or sensitivity adjustments. Created by the originators of electrostatic/triboelectric particulate monitoring technology, Auburn's U3400 is one of the most reliable, sensitive, easy to use particulate *emissions* and *flow* monitoring system available today.

The U3400 is wired directly to PLC's, data loggers, or any control device capable of simultaneously providing 24V loop power while receiving the continuous 4-20 mA signal, such as *TRIBO.prevent*, a dual-level alarm panel with local display. The **TRIBO.dsp U3400** is often the most suitable and economical choice for large multiple point bag leak detection applications. It is easily installed and connected to PLC's or data hubs for plant wide, data management purposes.

**TRIBO.dsp U3400 Features:**

- Two wire system, no line power required-minimal installation costs
- Continuous 4-20 mA Output
- User friendly set-up, log or linear modes easily selected
- Widest performance range available, use for flow or emissions applications
- No operator drift adjustment required - set and forget
- Automatic probe contamination check



**About TRIBO.dsp Technology**

The **TRIBO.dsp U3000** series includes an advanced operating platform, which incorporates more than a quarter century of Auburn's electrostatic particulate measurement experience. The **TRIBO.dsp** series unifies DC impaction (triboelectric) *and* AC (induction) flow signals for superior accuracy, reliability, and repeatability. This proprietary platform has proven to be more stable and accurate than AC-only, induction, and electrodynamic detectors.


**TRIBO.dsp Technology**

- Unified AC/DC signal processing is more accurate
- Superior signal filtering eliminates electrical noise interference for stable measurement
- Widest dynamic range and highest resolution for more process applications

**Competition's Technology**

- Isolated AC or DC only signal processing is less accurate
- Inferior signal filtering creates instability due to factory floor electrical noise
- Limited dynamic range and resolution is unsuitable for many process applications



U3400 ELECTRONICS SPECIFICATIONS	
Electronic Enclosure	Cast aluminum, electrostatically applied powder coating, equivalent NEMA 4
Power	12-32 VDC (Two-wire, loop-powered)
Power Required	< 1 watt
Operating Temperature	-40° - 185° F (-40° - 85° C)
Humidity Range	0 - 95% non-condensing
Hazardous Rating	Designed intrinsically safe
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	Typical .0005gr/dscf (1mg/m <sup>3</sup> ) concentration detectable
Output	Isolated 4-20mA compatible loop or powered network, with user selectable scaling
Approvals	 CSA Class: 2252 85, 2252 05
U3400 SENSOR SPECIFICATIONS	
Remote Sensor Enclosure	NEMA 4
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° - 475°F (-40° - 240°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
Options	Wire rope sensors; In-line ring sensors; Venturi (fugitive) dust sensors

We are confident we can satisfy your monitoring application or technical support needs. For additional information or to request a quote, please contact us or visit [www.auburnsys.com](http://www.auburnsys.com).

**Emissions Monitoring**

- Bag Leak Detection
- Dust Collector Maintenance
- Product Loss Prevention
- Maintenance Reduction
- Equipment Protection

**Process Applications**

- Process Optimization
- Particle Flow Velocity
- Gravity Feed
- Injection Flow
- Material Flow Control