

**EnergyTech 301 is a low-cost dust monitor using well-proven technology providing accurate and rapid results.**

**EnergyTech 301** continuous dust monitor uses the well-proven tribo-electric sensor technology to directly measure mass particulate concentration by sensing the frictional charge created when particles collide with a conductor.

The advanced electronics of the EnergyTech 301 detect this signal and present it to the operator via RS485 or 4-20mA directly out from the sensor head. The EnergyTech 301 also features a built-in display for viewing live sensor data as well as for configuration and calibration. The measurement levels can be corrected to  $\text{mg}/\text{m}^3$  via an integrated calibration function. The tribo-electric technique is extremely sensitive, capable of detecting dust concentrations of less than  $1\text{mg}/\text{m}^3$  in small ducts.

#### Features and Benefits:

Minimal maintenance requirement, making it ideal for small duct sizes  
A low installation cost makes this technology attractive for dust collector monitoring  
No critical alignment and no optical surfaces to keep clean  
This sensor is easy to install, only requiring a simple probe



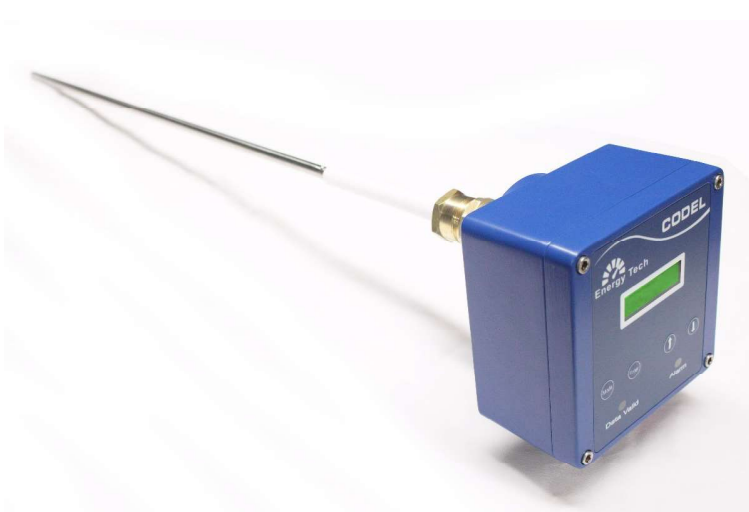
#### APPLICATIONS

- > Coal and Fuel-oil Fired Plants
- > Wood Fired Plants
- > Converter Plants
- > Pulp & Paper Plants
- > Processing Plants
- > Asphalt & Cement Plants
- > Any plant requiring dust monitoring
- > Baghouse

#### MONITORING SOLUTIONS

Complete source for all your Continuous Emissions Monitoring (CEMS) needs:

- > Both Dilution and Extraction CEMS systems
- > Data Acquisition Systems (DAS)
- > Flow Monitoring
- > Opacity Monitoring
- > Oxygen Monitoring Systems
- > Particulate (PM) Monitoring
- > Process Monitoring Systems



**Specifications Sensor Unit**

<b>Operating Principle</b>	Tribo Electric
<b>Operating Range</b>	0.07 to 6500mg/m <sup>3</sup> or 0-100%
<b>Particle Size</b>	0.1 to 100um
<b>Gain</b>	0.5 to1000
<b>Resolution</b>	0.01%
<b>Response Time</b>	1sec to 1 hr (operator selectable)
<b>Alarm Level</b>	Programmable by user
<b>Probe Lengths</b>	250, 500, 750 & 1000mm
<b>Fuel Gas Temperature</b>	0°C to +200°C
<b>Ambient Temperature</b>	-20°C to +55°C
<b>Power Supply</b>	85/265V AC
<b>Construction</b>	Aluminum casting, weatherproof to IP67 (NEMA 4)
<b>Dimensions (mm)</b>	H160 x W160 x D90
<b>Mounting Arrangements</b>	Supplied 1" BSP, 100mm Long Stub Pipe

**Customer Interface**

<b>Analogue Outputs</b>	4-20mA opto-isolated
<b>Alarm Outputs</b>	Alarm relay 2.5A at 24V
<b>Digital Outputs</b>	RS485 MODBUS Bi-Directional
<b>Display</b>	32 Character alpha-numeric back-lit LCD)
<b>Keypad</b>	4-key soft-touch entry

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