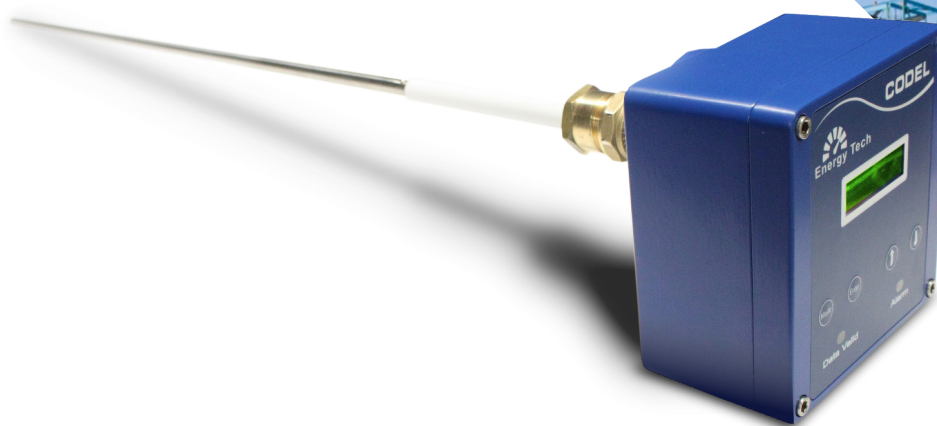


## Product Brochure

### EnergyTech 301 Dust Monitor



#### Low Cost Tribo Electric Dust Monitor

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

ISO 9001:2015

Quality Certification

ISO 14001:2015

Environmental Certification

Monitoring Solutions



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# EnergyTech 301 Dust Monitor

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 mg/m<sup>3</sup> via an integrated calibration function.

The tribo-electric technique is extremely sensitive, capable of detecting dust concentrations of less than 1mg/m<sup>3</sup> in small ducts.

The EnergyTech 301 requires no critical alignment and has no optical surfaces to keep clean. The sensor is easy to install, requiring only a simple probe and is ideal for small duct sizes.

Minimal maintenance is required, infrequent probe cleaning and low installation costs make this technology extremely attractive for dust collector monitoring.

## Features and Benefits

- ▶ Direct sensing method, actual particulate concentration.
- ▶ Automated online zero and span checking facility.
- ▶ Integrated calibration function for mg/m<sup>3</sup> output.
- ▶ Easy installation with minimal maintenance required.
- ▶ Adaptable, suitable for virtually all dust collectors.

## Typical Applications

- ▶ Industrial Manufacturing
- ▶ Chemical Manufacturing
- ▶ Power Plants
- ▶ Recycling Plants
- ▶ Woodworking and Sawmills
- ▶ Pharmaceutical
- ▶ Recycling Plants
- ▶ Mining Operations
- ▶ Power Generation
- ▶ Cement Plants
- ▶ Dust Collectors
- ▶ Waste Management

**Rugged & robust design developed for easy installation and maintenance**



## Technical Specification

### Sensor Unit

Operating Principle	Tribo Electric
Operating Range	0.07 to 6500mg/m3 or 0 - 100%
Particle Size	0.1 to 100µm
Gain	0.5 to 1000
Resolution	0.01%
Response Time	10 Seconds
Alarm Level	Programmable by user
Probe Lengths	250, 500, 750 & 1000mm
Flue Gas Temperature	0°C to +200°C
Ambient Temperature	-20°C to +55°C
Power Supply	85-265V AC (24V version available)
Construction	Powder coated aluminium casting, weatherproof to IP67 (NEMA 4)
Dimensions (mm)	H160 x W160 x D90
Mounting Arrangement	Supplied 1" BSP, 100mm Long Stub Pipe
Accuracy	+0.1%

### Compliances

EMC	89/336/EEC directive compliant
Low Voltage	73/23/EEC directive compliant

### Customer Interface

Analogue Outputs	4-20mA opto-isolated
Alarm Outputs	alarm relay 2.5A @ 24V
Digital Outputs	RS485 Modbus Bi-Directional
Display	32 Character alpha-numeric back-lit LCD)
Keypad	4-key soft-touch entry

### Compliances

Power	85-265V AC (24V version available)
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