

CONTINUOUS EMISSION MONITOR

(Particulate / Dust Monitor)

Process Trend Monitor and Multi-Purpose Dust Alarm With Display



SPM 2008



OMICRON

A Real time Continuous indicative dust monitor with logging & alarm capability.
It Consists of a single probe for installation in silo or duct & a control Unit / Logger

Applications

The Omicron can be used in most situations where the actual or potential presence of particulates creates an indicative monitoring requirement for example.

- Power - Thermal Power Stations
Cogeneration Power plants
- Steel & Non Ferrous metal Processing Unit
- Cement Plants
- Chemical , Fertilizer, Petrochemical, Pharma
- Boilers & Incinerators Paper Plants etc.

Technology

The Omicron series operate on the principle of Tribo - Electric charge transfer. The electrical charge carried by dust particles is captured by a highly sensitive Tribo - Electric probe, amplified and then transmitted to the control unit. As the current generated by the charge is proportional to the concentration of particles present, an indicative signal of dust presence results.

Key Product Features

- Quick & easy single point installation with no moving parts.
- Low capital & maintenance costs.
- High Sensitivity.
- Can be calibrated to show emission levels in mg / M3.
- Adjustable range from 1-1,000mg/m3.
- Minimum detection limit less than 1mg/m3.

Alarm Monitoring

The Omicron II is most commonly employed as a real time indicator of filter bag failure. The large LCD display gives an instantaneous read-out of the emissions in the form of digital read-out. The Green (Normal operations)-Yellow (Warning)-Red (Alarm) "Traffic Light" display in the control unit/logger Provides an easily visible alert for the operator, even if he is not closely monitoring the unit. The yellow warning light is set to operate when emission reach 75% of the level at which the red alarm is triggered, to allow early reaction(which can of course help avoid non - compliance with emissions limits or catastrophic failure).

Control Unit

The Control unit is mains powered, and incorporates alphanumeric display.
With Adjustable alarm levels.

- Dust levels at which the red LED light alarm is triggered
- The emissions level at which the audible and visual alarm is triggered

SPECIFICATIONS

Measurement

Technique	Tribo - Electric charge transfer
Sensitivity	Adjustable over a wide dynamic range
Operating Temp (Ambient)	-15 to 50 deg. C
Operating Temp (Gas)	-15 to 250 deg. C ("T" Model up to 700 deg. C)
Ranges	1-1,000mg/m ³
Response Time	Instantaneous

Installation

Duct Width	25mm to 2.2m
Positioning	90 deg. C to Duct Wall
Communications Path Length	Up to 1,000 meters
Socket	Single 1 Flat Flanged Fitting

Probe

Construction	315 Grade Stainless Steel
Sensor Length	25, 100 or 200mm (or customized)
Sensor Diameter	10mm
Size of Attachment	115 X 65 X 55 mm
Insulation	PTFE (T Model - Glass Ceramic)
Operating Temperature	-15 deg. C to 55 deg. C

Control Unit

Display	LCD Alphanumeric
Alarms	Green - Normal Yellow - Warning Red - High Alarm
Averaging Time	Programmable Up to One Hour
Output - Remote Alarm	Single Pole Relay 24V
Output - Remote data	4-20mA Continuous Output
Optional Output	RS 232

Note : Specifications and Features will vary with application. The above are established and validated during design, but are not to be construed as test criteria for every product. Due to endee's commitment to research, design and product improvement, specifications are subject to change without notice.



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