

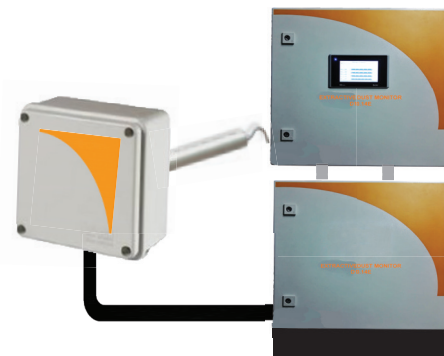
Measuring Principle

DM10.14E extractive dust monitoring system is a high temperature heating extractive dust monitor, based on dust detection technology. D10.14E uniformly samples dust in the flue (stack) to the high temperature heat tracing dust measuring module to measure, the detection limit reach $0.05\text{mg}/\text{m}^3$. No moisture influence and high accuracy, and it applicable for ultra-clean emission. Low temperature and high humidity flue gas situation after wet deSox meet the coal fired power plant air pollutants emission standard.

Under the negative pressure effect of jet pump, dust heated by sampling probe enters the measurement module. Heat tracing during the entire process of extraction, measurement and emission, it eliminates moisture interference, and prevent dust in the measurement module, using laser forward scattering principle to measure dust concentration. The exhaust gas after measurement pass into the stack.

It used electromagnetic valve and control unit to realize automatic counter blowing of gas path and measuring module, and automatic zero at regular intervals. After maintenance the laser device can be closed and calibration block can be inserted for manually zero and calibration.

It used micro differential pressure transmitter and pitot tube to measure flue gas flow inside the stack, feedback to flow control device and controls pump velocity by changing the fluid flow, realizes pitot tube balance sampling, Isokinetic extracts stack dust to measure.



Features

- Using laser forward scattering method to detect dust concentration, low detection limit
- High temperature heat tracing of dust extraction make steam evaporation to avoid dust agglomerate blocking gas path under the influence of water, suitable for high humidity.
- Pitot tube isokinetic sampling, comply with technical conditions of sampler for stack dust
- Support automatic zero and manual span calibration in the field
- Hot and wet application such as scrubber filter
- High moisture application

Application

- Palm Oil Mill
 - Paper Mill
 - Gas Fuel Boiler
 - Aluminium Plant
 - Steel Plant
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Specification

Principle	Extractive Laser Forward Scattering
Concentration Range	0-10mg/m ³ , multi-range switching
Detection Limit	0.05mg/m ³
Accuracy	±2%
Repeatability	±2%
Response Time	2s (optional)
Laser	650nm, 20mW
Sampling Head Diameter	6mm, 8mm, 10mm, 12mm, (according to the condition of customization)
Heat Tracing Temperature	120°C ~ +50°C
Instrument Air	No water and oil, ≥0.4MPa, gas consumption 100L/min
Blowback Time	Blowback 30s(Concentration data keep), interval period 3h (According to the condition of customization)
Velocity Range	2-40m/s
Preheating Time	15min
Analog Output	4-20mA, maximum load 500Ω
Communication Interface	RS485, RS232 (Option)
Weight	103kg
Dimension	1620mm (H) x 850mm(L) x 264mm(D)
Power	1500W
Supply	220 VAC
Enclosure rating	IP54

Diagram

