

Overview



BS -100

Online dust monitoring device using the mainstream technology of laser back-scattered light principle with imported core components. BS-100 is mainly used for continuous monitoring of various sources emissions of particulate matter concentrations. It can be either equipped with CEMS, or connected with dust monitoring network by a shared set of data acquisition and processing background.

It is available for the monitoring and control of soot emission, flue gas $DeSO_x$ and removal of dust for power generation boilers, industrial furnaces, industrial boilers in the thermal power, iron and steel metallurgy, petrochemical, chemical cement production, ceramics, waste incineration, etc.

Features

In-situ zeroing and span calibration

Automatic gain control function and temperature compensation

Smart appearance, easy installation, convenient disassembly

Without background light influence

Infrared remote control

Measuring Principle

Series of BS dust monitors consist of optical parts, circuit and control sections, calibrator and purge system.

The laser beam (650 nm) comes across the detection area and produces scattered light after effect with dust particles. The back-scattered light crosses the lens coverages into photosensitive detector. Analyzer circuit and control section converts light signal into signal output which is proportional to the dust concentration, and obtains dust particles emission concentration of pollution.

Specifications

Principle	Backward scattering
Ranges	0 ~ 200mg/m ³ , 0 ~ 10g/m ³ (option)
Accuracy	± 2% F.S.
Repeatability	± 1% F.S.
Response Time	1s
Laser Transmitter	650nm
Flue Gas Temperature	< 500°C (higher temperature need to be customized)
Ambient Temperature	- 40 to + 50°C
Duct Diameter	> 0.7m
Analog Output	4-20mA maximum load 800Ω, 2 x (4-20) mA
Digital Interface	RS485, 2 relay outputs
HMI	IRC+LCD
Weight	2Kg
Power	< 3W
Supply	24VDC/110VAC/230VAC
Enclosure class	IP 65