EM919 Emission Monitor

The EM919 Emission Monitor provides accurate emission levels monitoring and forms the basis for troubleshooting and fine-tuning of pollution control equipment. Combining bag leak detection and rapper performance monitoring, the EM919 helps reduce average Electrostatic Precipitators (ESP) emissions.

Overview

Baltec Australia's EM919 Emission Monitor uses state-of-the-art technology to monitor the performance of pollution control equipment on a real time basis. The EM919 was developed to withstand adverse outdoor site conditions. It measures emissions with high accuracy for a range of particulate flue gas concentrations .

Principles of Operation

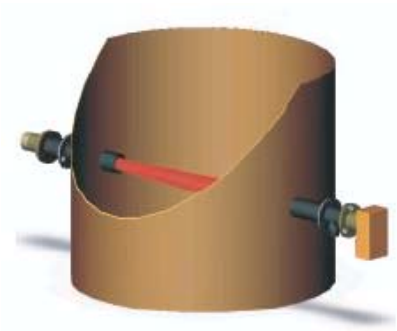
The EM919 monitors emissions using the opacity principle, whereby dust particle concentrations are determined as a function of their extinction of a light source. Until now, the practical application of the opacity principle was hindered by distortions due to the effects of ambient light, static dust, misalignments and moving dust while monitoring. The EM919 accurately incorporates these effects into its calculations.

Maximum Potential Signal

The EM919 employs the concept of 'Maximum Potential Signal' to ensure that accurate calibration is continuous throughout operation. The unit initially constructs a calibration graph that it then applies to future readings during continuous monitoring. It ensures that the instrument readings incorporate the following:

- LED tolerances
- Receiver tolerances
- Minor problems related to alignment
- Stack diameter

EM919 Stack Mounting Arrangement



EM919 Transmitter and Receiver Unit

User Interface

The EM919 offers three types of user interfaces:

1. The Low Level user interface comes with the basic module is in the form of 8 LED bar graph and a HEX switch that can select different program modes. Once the equipment is calibrated, the only interface that is required is for occasional diagnostics.

2. Mid Level or Operator Interface is offered in the form of a Hand Held Terminal that can be plugged in. This helps in the 'On Site' calibration and varying the alarm set points.

3. High Level or User Interface is offered in the form of a MODBUS connection to the plant DCS or a central computer. The Graphic User Interface and data logger can be used for data logging, diagnostics, calibration and VPN connection.

Technical Specifications

Supply Voltage	110/230 Volts AC - 50/60 Hz
Power Consumption	15 VA
Maximum Path Length	6 metres
Maximum Ambient Temperature	60 degrees Celsius
Enclosure (Protection)	IP55
Analog Output for Emission Indicators	4-20 mA (non-isolated) 500 ohms
Relay Outputs for Alarms	230V/0.5A
Serial Communication	RS232 Local/RS485 Remote Comm.
Air Requirement	Blowers: 125 L/s,; Compressed Air: 2L/S
Maximum Gas Temperature	175 or 250 degrees Celsius
Net Weight	25 kg
Package Size	600 x 600 x 300 mm
Standard	CE C N14532

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