EMP7 Particulate Emission Monitor

The EMP7 utilises ISE technology. Each particle travelling through the process develops an electrical charge. As the particle passes or impacts with the sensing element, a current is induced which is processed in EMP7 by a method called Impulse Signature Extraction ("ISE").

ISE technology extracts the basic characteristics (the "signature") of the impulsive signals induced by individual particles in the gas stream. Since these characteristics are related to such things as the particle velocity, EMP7 is able to compute velocity as a parameter, and therefore to calculate the emission level as either mass flow rate or mass density as required. In addition, although ISE technology processes the entire signal from the sensing element, its algorithm effectively negates the potentially erroneous effects of the DC component of the signal, so ISE technology shares all the advantages of existing AC Triboelectric technology.

Made a reality by recent advances in low power digital signal processing, ISE technology is as significant a step forward now as the introduction of AC Triboelectric technology was in 1992.

What It Does:

- EMP7 is a simple self contained 2-wire, particulate monitor with 4-20mA output diesigned to feed a PLC, display device such as AUD1 or Connect Network via Connect Access Card or Numeric Display, AUD1.
- Continuously monitors particulate flow, primarily emissions from process plants.
- Indicates condition and efficiency of cleaning system.
- Maintains absolute calibration.
- Models available for mg/m3 (gr/ft3) or mg/s (gr/s) following calibration to Iso-kinetic sample.
- Self test diagnostics including statistical history, run time, power up and optional remote diagnostics reporting.

Benefits:

- Detects all particles regardless of composition

- Very sensitive due to ISE Technology Monitoring.
- No range switching or other adjustments
- Calibration is constant
- Extremely wide range of concentration and mass flow.
- Tolerates extremely high leakage of signal due to insulator bridging.
- Seamless interface into industrial controls systems, such as PLC.