FilterSense

Analyze, Optimize, Comply

Particulate Monitor

Model EM 30LGX

Features & Benefits

- Advanced Induction-Sensing
- Ultra Reliable Protected-Probe
- Detect Leaks Before Visible Emissions
- Prevent the Escape of Valuable Powders
- Protect Downstream Equipment
- Superior to Traditional Triboelectric

Applications

- Baghouse Filter Leak Detection
- Cartridge Dust Collector Monitoring
- Cyclone Overflow Detection

Made in USA

Overview

Featuring FilterSense's virtually maintenance-free particulate flow sensing technology, the EM 30LGX is the process industries most reliable baghouse monitor, filter leak detector and cyclone overflow detector. It is also easy to operate. Simply apply power and begin assessing filter condition. For alarm setup the display provides both a logarithmic analog bar graph and an absolute digital readout. The log scale enables simultaneous observation of baseline readings and high dynamic peaks caused by filter cleaning cycles which is essential to set alarms. The digital read out in absolute units ensures correct interpretation of the readings and provides accurate historical comparisons without having to normalize data based on sensitivity or automatic gain settings. Outputs include dual relays and a 4-20mA for PLC connection.

The EM 30LGX meets EPA MACT leak detection regulations when configured accordingly. For automatic calibration checks, advanced filter leak analysis/locating systems and particulate CEMs, refer to other FilterSense models.

Principle of Operation

The EM 30LGX employs a field-proven combination of charge induction and protected-probe technologies invented by FilterSense. As particles flow near and around the probe, a minute current is induced. A DSP processes the signal into an absolute output relative to particulate flow. A protective layer over the probe works in combination with induction-sensing to ensure reliable operation with conductive particulate, moist powders, corrosive gases and particulate buildup. Maintenance is minimal and there is no need for an air purge. For durability, the sensors are passive and free of electronics. For safe, easy access and to facilitate EPA QA checks, the control unit and electronics are remote.

ISO 9001:2000 Certified

Particulate Monitor

Model EM 30LGX

Meets US EPA MACT

40 CFR Part 63

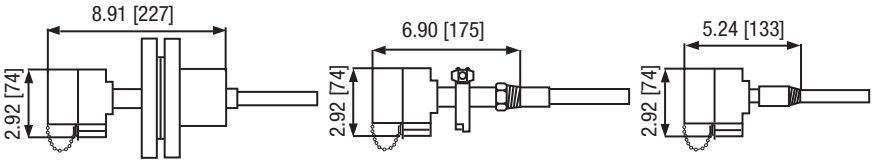
Requires proper configuration

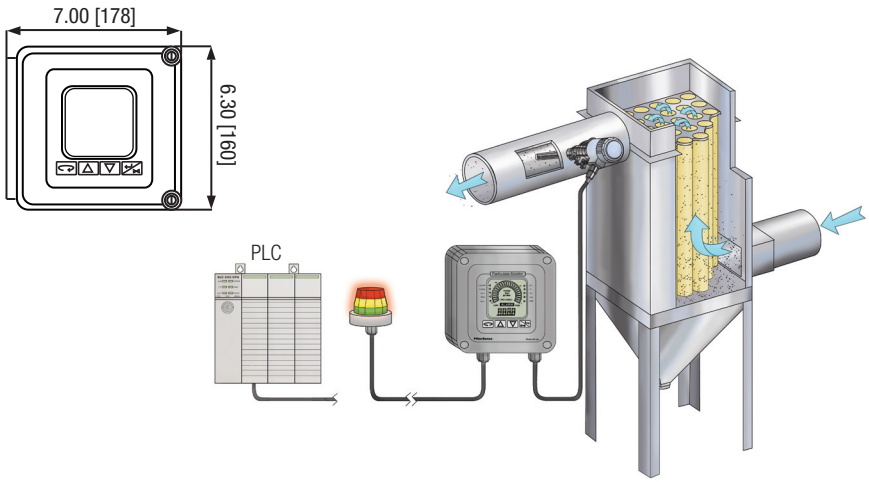
Specifications

Control Unit	
Power supply:	115/230VAC 50/60Hz Std (6 Watts max) 24VDC Opt
Resolution (Range):	5.0pA (0 to 5000pA) Std 0.5pA (0 to 5000.0pA) Opt
Outputs:	2 Relay (SPST 5A@240VAC) Std 1 Isolated 4-20mA Opt
Enclosure:	NEMA 4X Aluminum Std Other Opt
Temperature:	-13F (-25C) to 160F (70C)
User Interface:	LCD with digital, analog & text display, 4 button membrane keypad
Area Classification:	Ordinary locations (CE Approved) Std Ordinary locations (CSA Approved for use with Class I, II, III sensor) Opt
General:	Circuit boards conformal coated for long life in harsh environments

Sensor	
Housing:	NEMA 4X Aluminum Std
Probe Lengths:	3, 5, 10, 15, 20, 30, 36" (Approximately 1/2 duct/pipe I.D.) Extended nipples & rope sensors for large multicompartment baghouses
Mounting:	NPT, Tri-Clamp or Flange
Wetted Materials:	316SS and Teflon or Ceramic Std Hastelloy Opt
Process Temperature:	-40F (-40C) to 250F (120C) Std 450F (232C) Opt 800-1600F Opt
Process Pressure:	10PSI (0.69bar) Std, 100PSI (6.9bar) Opt, 1000PSI (69bar) Opt
Sensor Cable:	300' (100m) Max
Area Classification:	Ordinary locations (CE Approved) Std Class I, II, III, Div I, II, All Groups (Intrinsically Safe, CSA Approved) Opt
General:	No special alignment, not affected by normal vibration

Application Range	
Particulate:	Any type >0.3 micron - Conductive, non-conductive, moist, corrosive
Minimum Detection Level:	With 5.0pA resolution - Approx. 5-10mg/m3 (standard leak detection) With 0.5pA resolution - Approx. 0.5mg/m3 (monitoring & analysis)





FilterSense

800 Cummings Center
Beverly, MA 01915 USA
Tel: 978-927-4304
Fax: 978-927-4329
www.filtersense.com
info@filtersense.com

Advanced Solutions for Process Filtration