

BABBITT INTERNATIONAL

FT4100 Dust Emission Monitor

FEATURES

- No Calibration - Auto Ranging
- 2 Setpoints for Alarm
- 4-20 mA output for Recording
- LCD Bar Graph Display
- Real Time Digital Readout
- Peak Value Capture Display
- Lockable Key Pad

BENEFITS

- Comply with EPA Filter Leak Regulations
- Monitor Filter Performance without Prior Baseline Data
- Protect Downstream Equipment
- Eliminate Unplanned Shutdowns
- Prevent Product Loss and Clean-up

GENERAL

The FT4100 allows simple, no calibration, "plug and play" monitoring of filter conditions in a baghouse or dust collector. The solid 316SS probe is placed in the discharge duct of the dust collector. Dust particles passing by the probe induce an electrical charge that is carried along the low noise coaxial cable to the control unit. The control unit displays the sensed values, alarms and provides a 4-20mA output proportional to the level of emissions.

For applications that have electrically conductive dusts, condensate or moisture which would cause a build-up on the sensing probe we offer a system with a coated probe that will be unaffected by such conditions; please specify option "PP" when ordering for this option.



FT4100 continuously monitors dust filter leakage.

LCD DISPLAY

A semi-circular bar graph displays the dust leakage levels on a logarithmic scale (field selectable linear scale is also standard). The bar graph corresponds to a real time digital readout. A flashing "Alarm" and "Pre-Visible" message signals when setpoints have been exceeded. One segment of the bar graph will hold the peak value reading allowing operators to observe the peak value in a fast changing environment.

ALARMS AND OUTPUTS

Dust emissions occur at two different times and at two different levels in a dust collector. The first is the baseline emission level, which is the normal leakage whenever the collector is in operation. Typically a higher emission level occurs when the filters are being pulsed or cleaned by reverse air.

The FT4100 allows the operator to precisely set the alarm setpoint when the baseline leakage increases, when the peak levels during cleaning increase *or both!* A time delay (0-60 seconds) is user programmable via the keypad to filter out nuisance alarms for both setpoints. One on-board relay is the output for both alarm signals.

A 4-20mA signal proportional to the dust leakage is provided for recording or remote monitoring of the dust filters condition.

SPECIFICATIONS

ELECTRICAL

Power: 115/230VAC 50/60 Hz
(24 VDC optional)
Output: Relay: SPDT, 5A at 240VAC
4-20 mA non-isolated, 500 ohms
Fuse: On-board 0.032 Amp

MECHANICAL

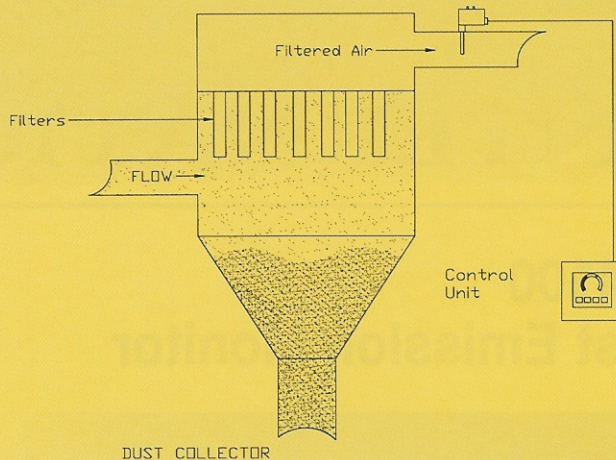
Process Entry: 3/4" NPT, Tri-Clamp optional
Conduit Entry: 3/4" NPT
Probe: 1/2" Diameter 316 Stainless Steel
3", 6" and 12" standard
(Coated probes for wet or conductive
dusts are optional)
Insulator: Teflon
Enclosure: Probe: Copper free cast aluminum
Control Unit: Non-metallic 7"x7"x5"
with membrane key-pad
Sensor Cable: Low noise coaxial, 15 feet standard
400 feet maximum

ENVIRONMENTAL

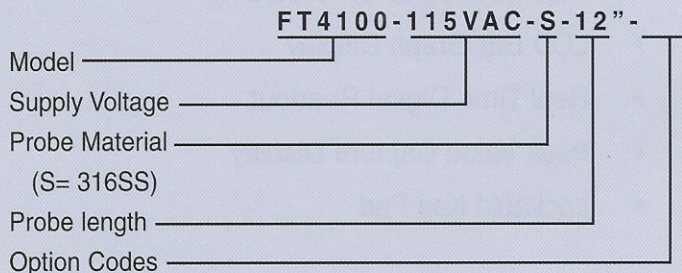
Temperature: Control Unit: -13F to 160F
Probe: -30F to 400F
Pressure: 80 PSI
Enclosures: Sensor: Class I, Grp. C&D
Class II, Grp. E,F,G, Class III
Control Unit: NEMA 4X, 12, 13
I.S. Barrier: Built-in at control unit

OPERATIONAL

Sensitivity: Standard: 5.0 to 5000 pA
(~5.0 to 5000 mg/m3 or
0.002 to 2.0 gr/cf)
Optional: 0.5 to 500 pA
(~0.5 to 500 mg/m3 or
0.0002 to 0.2 gr/cf)
Particle size: > 0.3 micron
Air Velocity: 300 FPM or higher
Accuracy: +/-5% of output range
Specifications subject to change without notice.



ORDERING INFORMATION



OPTION CODES

ES = ENHANCED SENSITIVITY (0.5 TO 500 pA range)
PP = Coated probe and modified electronics for conductive or wet applications
TC = 1.5" triclamp mounting
X = Other, Please specify

