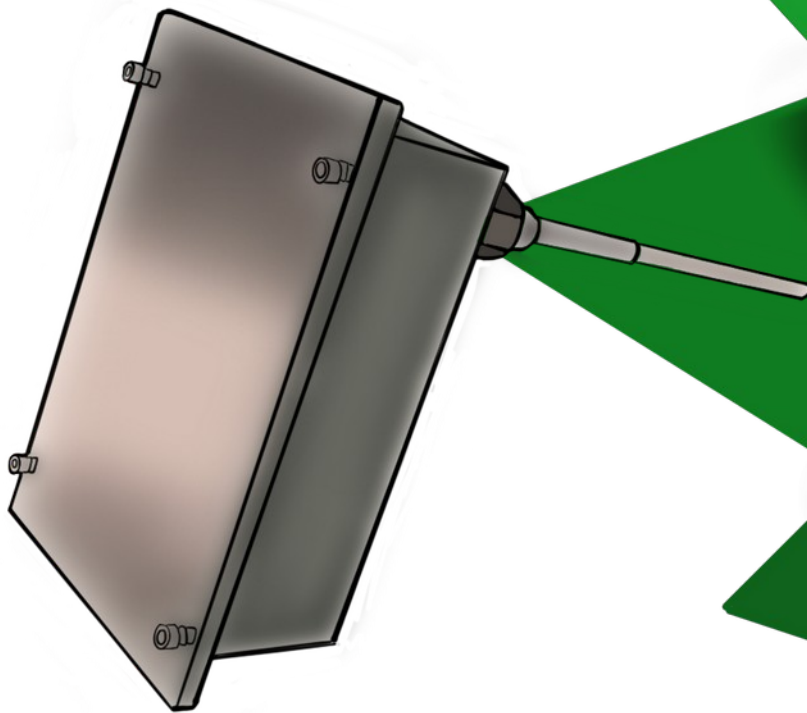




Dynamic Induction Dust Monitors

**IF THE QUESTION IS PARTICULATE,
THE ANSWER IS B3 SYSTEMS.**



Baghouse
Leak
Detector

Dust
Monitoring

PM
Monitoring

Modbus
RTU/TCP

Built-in
Averaging &
Alarming

Automated
Zero/Span,
Linearity & Rod
Isolation Checks

MEETS ALL EPA MACT REQUIREMENTS

INTEGRATES DIRECTLY INTO PLANT PLC/DCS

COMPLETELY DIGITAL DUST READINGS

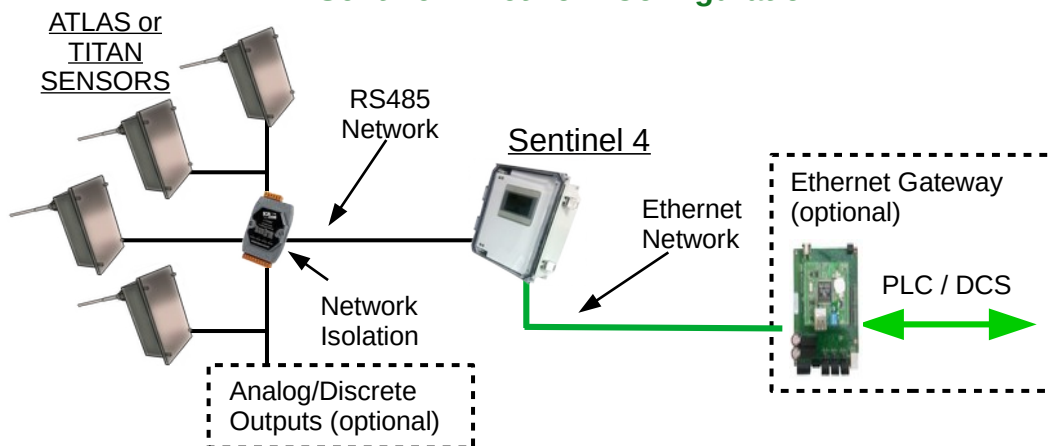
PATENTED ROD ISOLATION CHECK

**ROLLING AVERAGES AND INSTANTANEOUS DUST WITH
ALARMING FUNCTIONS ON ALL DUST CHANNELS**

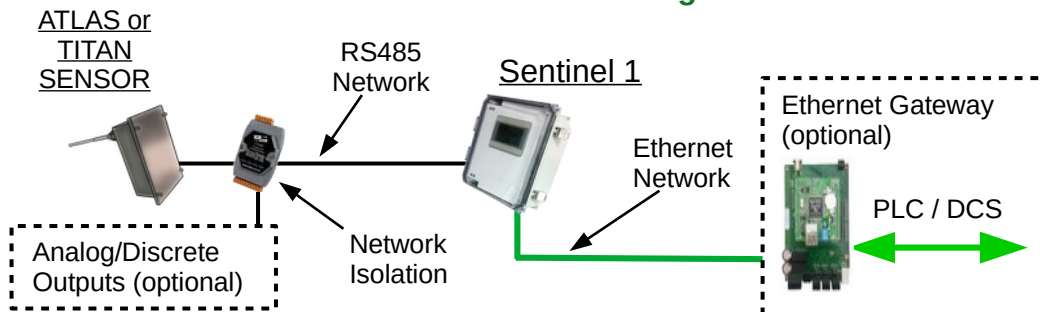
Dynamic Induction Dust Monitors

System Configurations Options

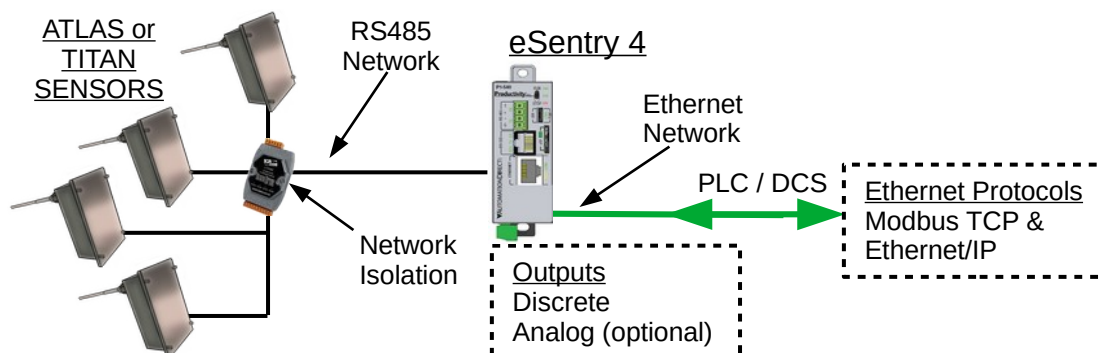
Sentinel 4 Network Configuration



Sentinel 1 Network Configuration



eSentry 4 Network Configuration



Dynamic Induction Dust Monitors

Sensor Features

	Scout	Atlas	Titan
Analog Output	4-20 mA and 0-10 v dc	-a-	-a-
Alarm Relay	Y	-a-	-a-
RS485	---	1	2
Ethernet	---	---	1
Onboard Communication Protocols	---	Modbus RTU	Modbus RTU & TCP
Dust – Instant	Choose One	Y	Y
Dust – Rolling Averages Channels		1	3
High Dust Alarms	---	1	4
Alarm Delay	---	Y	Y
Probe Type	Local – Standard Remote – Optional		
Detection Resolution	< 0.01 mg/m ³		
Enclosure	NEMA 4X		
Weight	7.0 lbs (3.2 kg) (without the rod)		
Dimensions (without rod)	7" x 11" x 5" (W x H x D) 178mm x 280mm x 127mm		
Ambient Temperature	-40 C to +70 C (-40 F to 158 F)		
Power Supply	24 VDC		
Power Consumption	Less than 5 Watts		
Process Temperature	Default 200 C (392 F) Optionally up to 1600 F (871 C)		
Process Pressure	Default 3000 psi (20684 kPa)		
Process Humidity	Max 95% RH (non-condensing)		
Optional Extreme Applications			
High Vibration	Please Call		
High Temperature	Please Call		
Advanced Features & Functions			
Automated Rod Isolation Check	---	-o-	-o-
Automated Zero/Span check	---	-o-	-o-
Automated Linearity Check	---	-o-	-o-
Real-Time Clock	---	---	Y
s-Standard o-Optional Feature/Function a-Optional, additional equipment required			

Dynamic Induction Dust Monitors

OVERVIEW

All of B3 Systems' Dust Sensors are designed to provide the highest resolution of dust sensing employed by any sensor on the market along with easy access and integration components to meet your specific needs. Affordability, increased productivity of your operation and reduced maintenance cost are just a few of the core competencies of our sensors and systems.

INDUSTRIES WE WORK WITH:

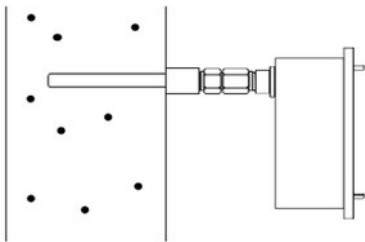
Cement, Power, Waste Incineration, Food Industry,
Pharmaceutical, Foundries, Chemical Processing, Fertilizers,
Tobacco, Animal Food Processing, Metallurgical, Wood
Processing

OUR TECHNOLOGY

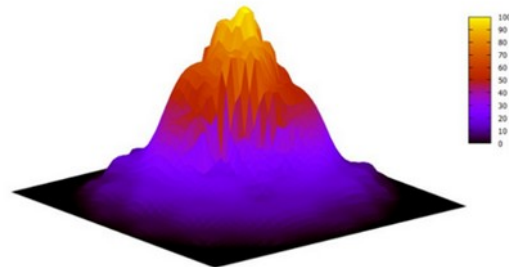
B3 Systems, Inc. utilizes Dynamic Induction™ (DI) sensing technology. Dynamic Induction monitors the alternating current (AC) generated by the dust particles in an air stream and not the direct current (DC). Dynamic Induction utilizes the most advanced signal processing and filtering to eliminate outside noise and only include the portion of the signal related to the Dust.

Four (4) independent and dynamic ranges within the sensor are provided to create the maximum resolution and accuracy in every sensor and the largest dynamic operating range of any sensor on the market. The Titan is the only sensor on the market that verifies the status of each input channel.

Aside from using an industrial standard communication protocol, each sensor is capable of calculating up to three (3) rolling average channels of dust readings along with the alarm status for each channel.



Stack View of Sensor Installation



Signal Response looking directly at the end of the rod.
Data collected from internal Stratification Testing (recorded, 2019).

Represents ability to detect particles ~12" to 18" either side of the rod, providing a larger and more representative monitoring zone than single-point or cross-stack technologies.

CUSTOM APPLICATIONS WELCOMED