GOYENmecair

BBD6
Broken Bag Detector

Innovative Environmental Solutions

tyco / Flow Control / Environmental Systems

What it Does

- Continuously monitors for filter media leakage.
- Indicates relative condition of bags.
- Acts as a preventative maintenance tool.

Product Description

The BBD6 utilises AC Coupled Triboelectric technology. As particles travel through the process they develop a charge. This charge is transferred as the particle passes or impacts the sensing element. The resulting current is amplified, filtered, rectified and further filtered looking only at the AC component, giving a linear representation of the concentration or mass flow rate of the particles in the gas stream.

The reason for measuring the AC component is that, compared to the DC component, the electronics are more sensitive. The AC signal is substantially less affected by influences such as amplifier noise and process parameters, which includes the build-up of process dust on the sensing rod.

The BBD6 remote sensing head totally filters out any 50Hz or 60Hz frequencies related to mains supply. The amplified signal is then sent via data cable to the control unit for further processing and display.

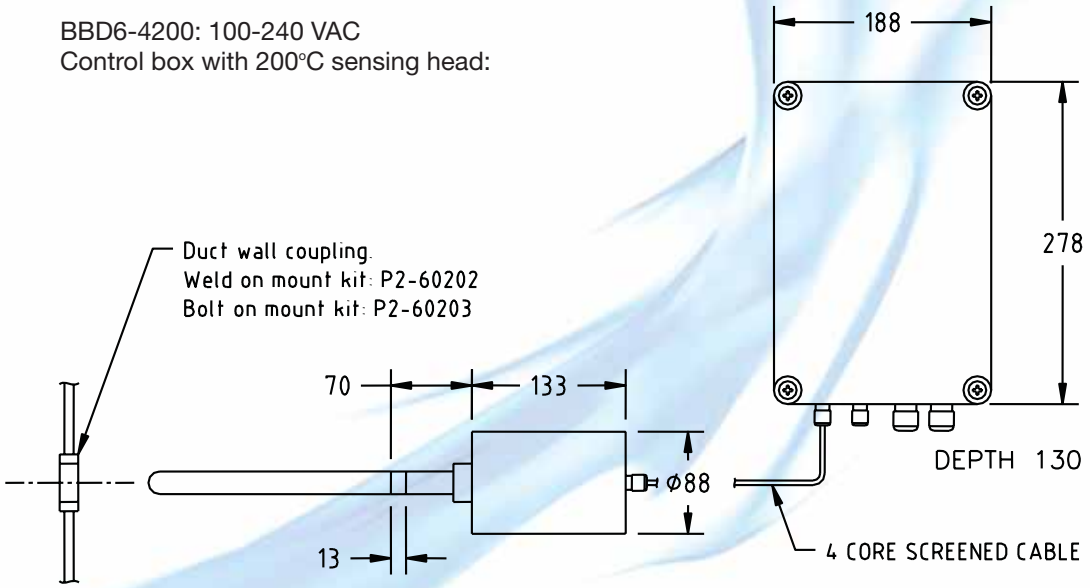
Operational Range

- Suitable for a wide range of dust collection and stack emissions
- Applicable for all types of outlet stack geometrical arrangements
- Insertion temperatures up to 200°C (392°F), higher if required
- Applicable to most particulate types
- For duct sizes from 50mm (2”) to outlets over 10m (33ft)
- Dust concentrations from 0.01mg/m^3 (4x10-6gr/ft^3)
- Suitable for most stack material eg. steel, brick etc
- Optional hazardous area (positively pressurised).

Benefits

- Detects most particles regardless of composition
- Very sensitive due to AC coupled technolgy
- Can monitor extremely small particles eg. galvanising fume (20.1µm)
- Can be used over a wide range of particulate densities
- Can assist in dramatically reducing plant down time through filter failures.

BBD6-4200: 100-240 VAC
Control box with 200ºC sensing head:



Features

- Proven AC Triboelectric technology
- Relay time delay feature
- Sensitivity adjustment
- Air purge port
- Simple Installation
- Alarm level adjustment.

Modes of Operation

The BBD6 indicates instantaneous levels of particulate emissions stream.

The instrument is usually in an uncalibrated indicative mode in which levels are displayed in a relative scale (0-100%). The BBD6 also has 2 relay modes – Normal and Failsafe.

Normal

- The alarm relay is de-energised when the BBD6 is powered up.

Failsafe

- The alarm relay is energised when the BBD6 is powered up
- The alarm relay is de-energised when the BBD6 is in the alarm state
- Is used so that both power failure and high emissions are alarmed.

Technical Specification

Functions	
Bar graph:	Visual indication of emission density
Alarm time delay:	0-9 seconds in 1 second steps to prevent false alarms due to pulsing
Sensitivity:	Adjustable sensitivity within the sensing head (High, medium and low available)
Outputs	
Name:	Alarm relay
Specification:	8A Resistive, 1A Inductive
Function:	Emission alarm
Control Unit	
Enclosure rating:	IP66/Nema 4, ATEX III 3 D&G
Enclosure size:	280mm x 190mm x 130mm (254mm x 164mm Mounting)
Enclosure material:	Plastic Composite
Power supply:	100-240 VAC
Bargraph display:	20 step LED
Temperature range:	-20°C to 60°C (-4°F to 140°F)
Active head:	One
Sensing Head	
Insertion temperature range:	P2-45220: -20°C to 200°C (-4°F to 392°F)
Connection required on duct:	1” BSPT socket
Enclosure	
Temperature range:	-20°C to 60°C (-4°F to 140°F)
Enclosure rating:	IP66/NEMA4, ATEX II 3 D&G
Enclosure material:	Aluminium
Sensing element material:	316 Stainless Steel
Sensing element options:	Solid rod, tubular, teflon coated, multiple supports, cable type, different lengths available
Air Purge Requirements	
Connection:	1/8” gas thread on side of unit
Air Pressure:	400kPa (60psi) max
Air Consumption:	1.7 -17m3/hr (1-10cfm) pulsed
Electrical Specification between Sensing Head and Control Unit:	4 core screened data cables: Beldon 9534 (or equivalent) max 100m (330ft)

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