Dusty C

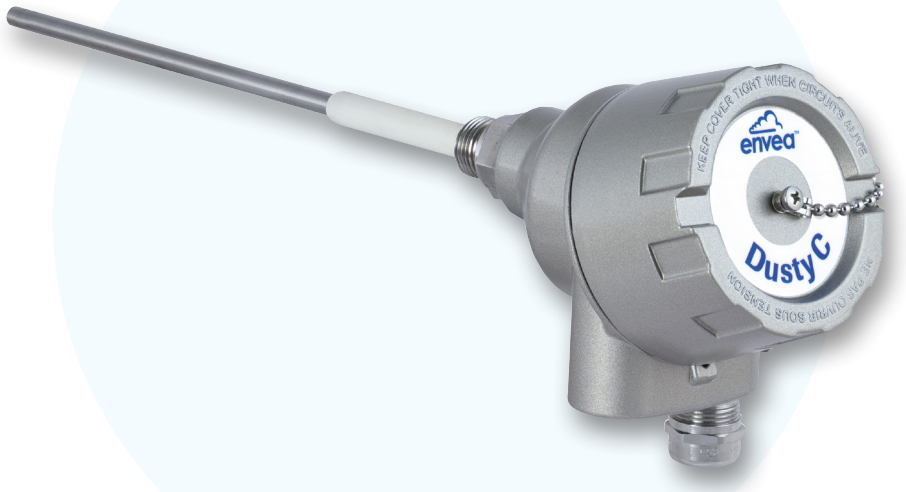


EUROTEC

Compact Sensor for Broken Bag Detection

PROCESS MONITORING SYSTEMS FOR SOLIDS

Product Information



FEATURES:

- Detects all dust types
- Can be used in all purge gas and dust ducts
- Immediate detection of filter damages
- Simple commissioning (Plug & Play)
- Prevention of process-induced dust Ex zones
- Individual choice of alarm threshold
- Rapid and easy retrofitting
- 4 ... 20 mA output at sensor

Ex certificated according to ATEX

TECHNOLOGY

USE / FUNCTION

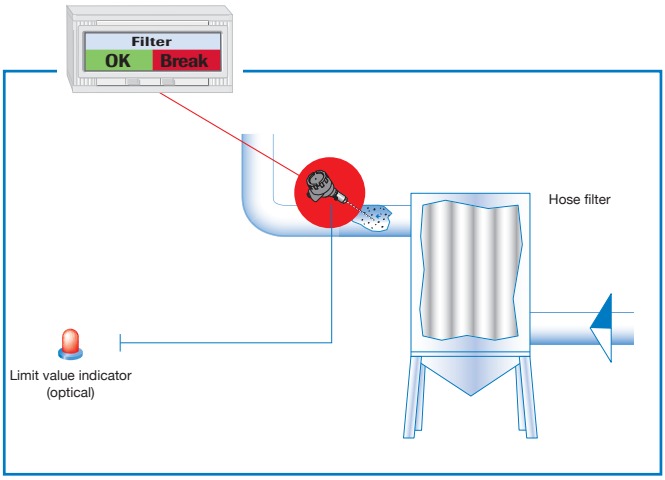
The Dusty C has been specially developed to monitor treated sides after filters reliably and without time delay for filter breaks.

It can be used in metallic ducts in which dust particles are to be detected in the gas flow. Its area of application begins at dust levels of 0.1 mg/m³.

The Dusty C can be used in Ex zones (Dust zone 22 / Gas zone 2). Thanks to its speed and reliability, the Dusty C can also be used optimally as an alternative and/or extension to the “police filter”, as well as an alternative to differential pressure measurement.

The Dusty C works on the basis of the electrodynamic principle. A charge transfer occurs as soon as particles flow past the measuring probe.

A measuring signal is generated from this, which triggers a switching contact as soon as a limit value is reached.







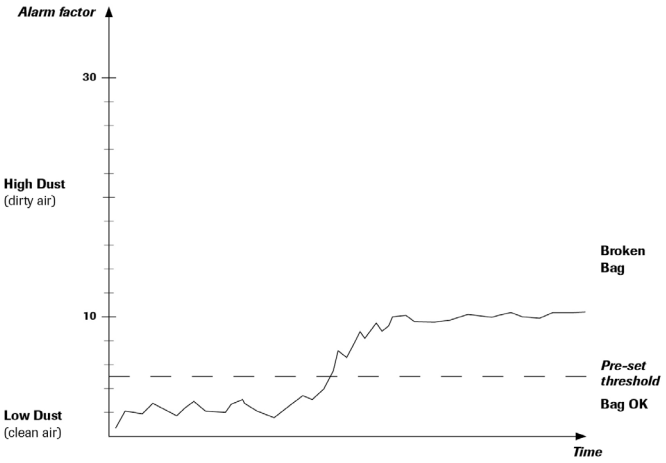
TECHNOLOGY

SYSTEM

The Dusty is a compact device that operates on 24 V DC power supply.

The device is delivered with a pre-set alarm level. This pre-set allow to detect filter failure in most case. The alarm level value correspond to an output signal of 12mA. It can be individually adjusted to the respective application by the operator.

The sensor allows the user to set the alarm threshold himself. This could be done using the on-button method or via our software (Dust Base).



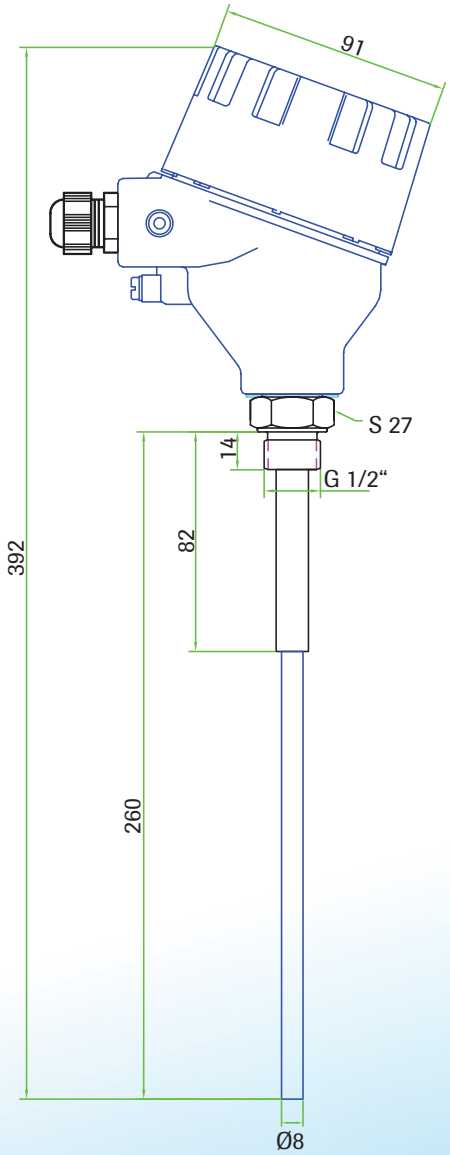
ADVANTAGES

- Usable in all clean gas and dust channels
- All dust types can be detected
- Easy commissioning (plug & play)
- Immediate detection of filter breaks
- Avoidance of process-inducted dust zones subject to explosion hazards
- Individual choice of the alarm threshold
- Fast and simple refitting
- 4 ... 20mA analog trend signal output

SPECIFICATIONS

TECHNICAL DATA

Sensor	
Measurement objects	Solid particles in a gas flow
Measurement range	From 0.1 mg/m³
Process temperature	Max. 140 °C (higher temperature on request)
Ambient temperature	- 20 ... + 60 °C
Pressure	Max. 2 bar
Gas velocity	Min. 4 m/s
Humidity	95 % RH (non-condensing)
Principle	Electrodynamic
Damping time	1 s
Output signals	4 ... 20mA analog output (Active) Relay
Sensor rod	Total length: 260 mm length of stainless steel rod: approx. 194 mm
Housing material	Aluminium
Using in Ex-zones	Cat. 3 G/D (zone 2 gas / zone 22 dust)
Protection category	IP65
Power supply	24 V DC ± 10 %
Power consumption	2.5 W
Electrical connection	• screw-type / terminal box • M12 connector (optional)
Assembly	Via ½“ screw-in-thread
Weight	Approx. 1 kg



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