

ON-LINE BAGHOUSE FAILURE MONITORING SYSTEM

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GREENBANK ENERGY SOLUTIONS
GESI BAGHOUSE FAILURE MONITORING SYSTEM



Greenbank FilterGuard

particulate monitor for baghouse filter failures

- ◆ Broken Bag Detector
- ◆ Filter Monitor
- ◆ Dust Measurement

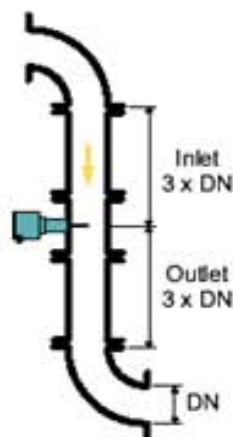


Installation

The dust monitor is used for the detection of filter (hose, cloth, fabric filters) malfunction e.g. broken bag or gross failure..

Greenbank FilterGuard The *FilterGuard* technology is based on a modified triboelectric principle detecting particles interacting with the sensing rod and such particles just passing the rod. Build up on the Only moving particles generate a flow rate proportional signal which is monitored by the electronics.

Three electronics versions are available with analog (FG20), relay (FG01) or transistor (FG02) output.



Adaptation is done under normal conditions by switches and potentiometer, *FilterGuard's* alarm level (FG01, FG02) can be set above this background. Signal averaging is selectable by the user.

The sensor length should be 1/3 to 2/3 of the duct diameter, 800mm maximum.

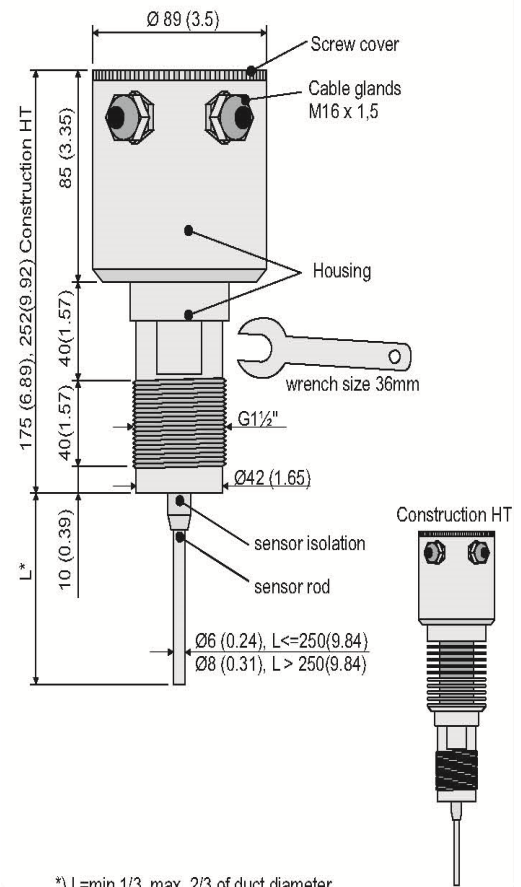
Installation is done on the clean gas side downstream the filter at a metal duct by welding on of a thread bush boring through the duct wall and screwing in *FilterGuard*. Upstream and downstream the sensor at least three duct diameters should be straight without any fittings like valves or dampers. Commissioning is simple and requires no tools or specialized equipment.

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Technical Data

Material	Housing	Stainl. Steel 1.4571
	Sensor rod (standard)	Stainl. Steel 1.4571
	Isolation (standard)	Polyamide (PA)
	Sealing (standard)	NBR
Ambient cond	temperature	-20°C to +70°C
	Protection class	IP 67 (EN 60529)
	EMC	According to EN 61326-1
Process	Temperature Max.	90°C
	Pressure	Max. 2 bar
Output	FlowSwitch_01	Max. 48 V AC/DC, 1A
	FlowSwitch_02	Logic high/low switchable
	FlowSwitch_20	Max. 31 V DC, 15 mA
		Logic high/low Switchable
		4-20 mA, galvanic isolated, load < 500
Power supply	FlowSwitch_01/02	17...31 V DC, max. 60mA
	FlowSwitch_20	24 V DC ± 10 %, max. 80 mA
Adjustment	Sensitivity	1...180.000
	Damping	0...10 s
	Switchpoint	1...10
	Zero set	FlowSWITCH_01/02 4 mA, FlowSWITCH_GM20

Dimensions in mm / (inches)

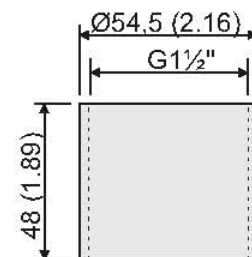


*) L = min. 1/3, max. 2/3 of duct diameter

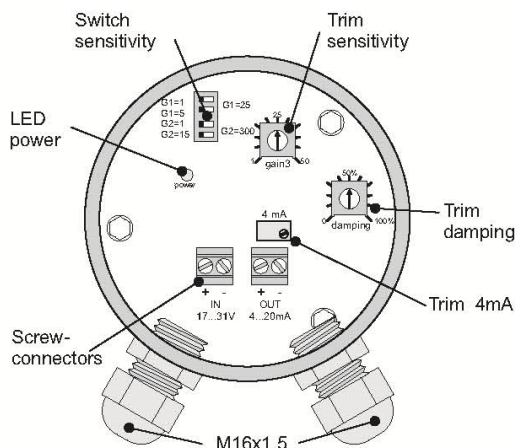
Main Benefits

- Maintenance free
- Adjustable sensitivity
- Adjustable switch
- Condition indication with LED
- Stainless steel housing
- Compact form
- Easy installation

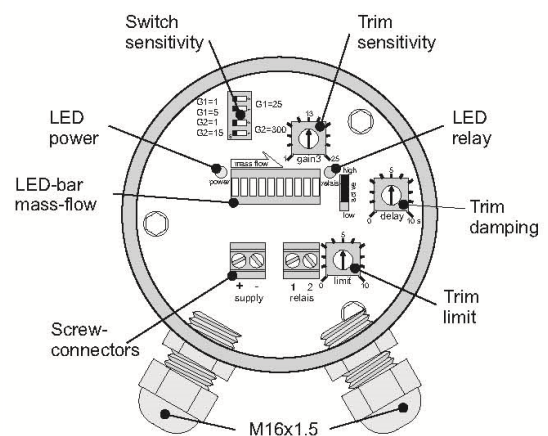
Accessory Threaded bush



FilterGuard FG20



FilterGuard FG01 & 02



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