



FlowSWITCH 700E

Dust watch for filter monitoring

Application

The dust monitor FlowSWITCH 700E is used for the detection of filter failure functions e.g. crack or defect in assembling.

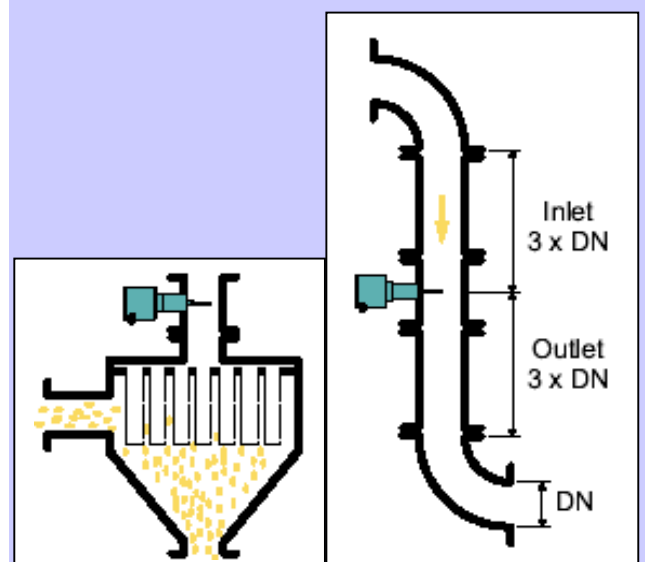
By the triboelectric measuring principle a dust breakthrough can be recognized reliable.

Scope of use

FlowSwitch 700E can be put in metallic pipes and channels which shall be monitored on dust.

Main Benefits

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



Function

The technology is based on a modified triboelectric principle detecting particles interacting with the sensing rod and such particles just passing the rod.

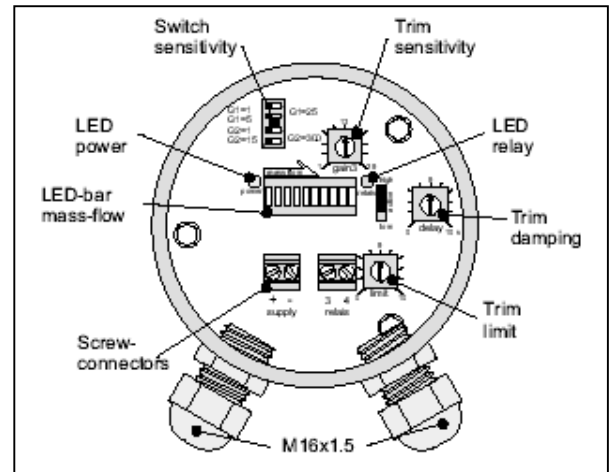
Build up on the rod surface will not be detected, only moving particles generate a flow rate proportional signal which is monitored by the electronics.

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 dust watch. On and off distance should this 3-fold of the pipe diameter area, the sensor length 1/3 to 2/3 of the pipe diameter.

The device isn't usable at products, which build an electric conductivity coating between sensing rod and pipe wall, caused of abrasion.

Operation

Switching output



Technical Data

Material	Housing	Stainl. steel 1.4305
	Sensor rod (standard)	Stainl. steel 1.4571
	Isolation (standard)	Polyamide (PA)
	Sealing (standard)	NBR
Ambient cond.	Temperature	-20°C...+70°C (-4°F...158°F)
	Degree of protection	IP 67 (EN 60529)
	EMC	According to EN 61326-1
Process cond.	Temperature (standard)	Max. 90°C (194°F)
	Pressure	Max. 2 bar (28 lbs)
Output	FlowSWITCH_01	Max. 48 V AC/DC, 1A High/low switchable
	FlowSWITCH_02	Transistor: galvanic isolated Max. 31 V DC, 15 mA High/low switchable
	FlowSWITCH_20	4-20 mA, galvanically isolated load < 500
Supply voltage	FlowSWITCH_01/02	17...31 V DC, max. 60 mA.,
	FlowSWITCH_20	24 V DC ± 10 %, max. 80 mA
Adjustment	Sensitivity	1...180.000
	Damping	0...10 s
	Switchpoint	1...10 (FlowSWITCH_01/02)
	Zero set	4 mA (FlowSWITCH_GM20)

