

## Filter monitor

**Filter monitor for efficiency monitoring after filter plants and for continuous dust measuring in dry emissions**

### Features

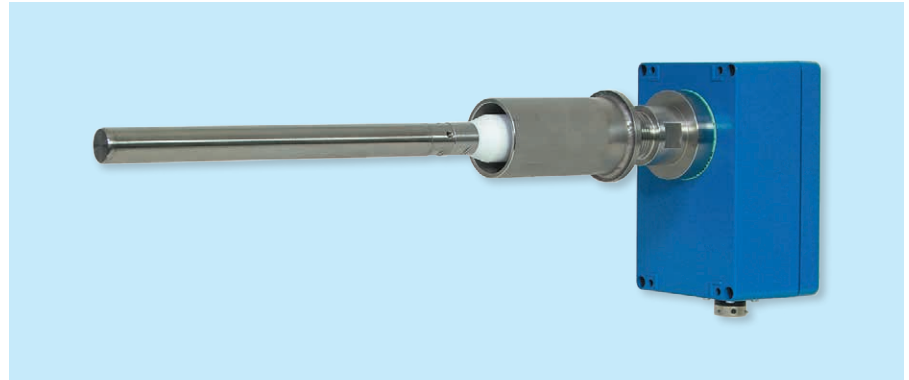
- Compact and rugged design
- Good price/performance ratio
- Ideal for monitoring bag filters
- Minimal maintenance required
- Early detection of filter malfunctions
- Savings in cost, as no preventative filter exchange is necessary

### Applications

- Power stations
- Bag filter plants of all types
- Dust extraction plants in the production industry
- Waste incineration plants
- Crematoriums
- ✘ Not suitable for use directly behind electrostatic precipitators

### Approvals

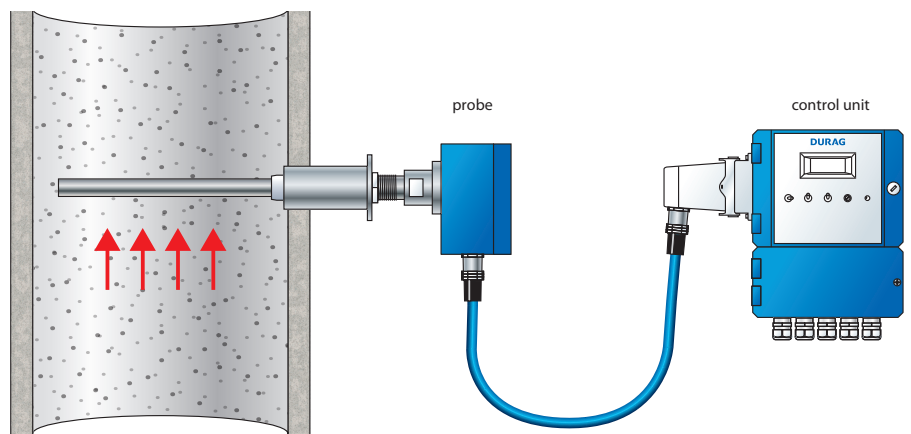
- Suitability-tested by the TÜV Hamburg, test report 98CU026



### Measuring principle

The filter monitor uses the triboelectric effect to determine dust loads in flowing gases. The electrical charge which the dust particles experience due to friction is picked up by a probe protruding into the dust channel and converted into a measuring signal by electronics. The measuring signal is proportional to the dust concentration and is calibratable at a constant gas speed.

### System components



### Options

- Measuring gas temperature up to 500 °C
- Ex version **D-FW 240/Ex**
- Weather protection cover
- Various mounting options (flange, connection piece)
- Probe rod lengths 80, 250, 700, 1000 mm
- control unit with digital display

measurements	dust mass flow	digital outputs*	1 relay output, permissible load 250 V/ 100 VA
measuring ranges	0 ... 100% (flue gas velocity >5 m/s)	digital inputs*	2 potential free inputs
measuring principle	tribo electric	detection limit	<2% of measuring range/month
flue gas temperature	above dew point up to 200 °C, optional up to 500 °C, flue gas humidity <80%	power supply	24 VDC, 5 VA 115/ 230 VAC, 50/ 60 Hz, 10 VA*
flue gas pressure	-500 ... +500 hPa	dimensions (h x w x d)	probe: 180 x 80 x (270 + probe length) mm 80, 250, 400, 700 mm
duct diameter	0.3...4 m	probe length	
ambient temperature	-20 ... +50 °C	weight	probe: max. 4.5 kg control unit: 3 kg
protection	IP65	remarks	* with operating unit only
measuring outputs	0/ 4 ... 20 mA/ 500 Ohm		