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Product information PFM 97 W

The dust concentration measuring device PFM 97 W is used for continuous measurement of dust contents especially for emission measurement according to TI Air, 13th, 17th and 27th BImSchV as well as for process monitoring. In addition to dust concentration the device measures simultaneously flow and temperature of the flue gas.

The dust concentration measuring device PFM 97 W

The special probe of the PFM 97 W consists of 2 tribo probes and a dynamic pressure probe: the tribo probes collect the raw signal of the dust concentration in redundant way. In order to compensate the velocity influence on the triboelectric measurement the gas velocity is measured by means of a dynamic pressure probe. The synchronous determination of the gas temperature allows the calculation of the dust concentration in norm state.
In case of high dust contents the dynamic pressure probe of the PFM 97 W can be cleaned by means of PCS 03.

Advantages:

- Combined device
- High measuring accuracy
- Simple installation with special tools
- low demand for maintenance (long operation time)
- low operational costs
- purging air is not required
- probe pollution has only very little influence on the measuring result

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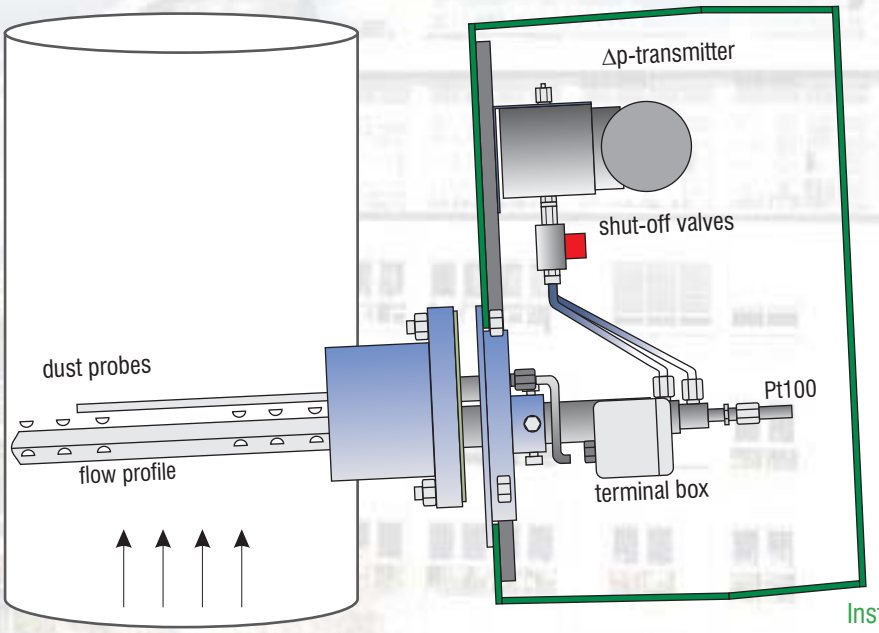
Highlights of the device

- Basic unit consisting of probe and control unit
- Combined device – simultaneous measurement of dust, exhaust gas velocity respectively flow as well as exhaust gas temperature (optionally pressure)
- Application in corrosive gases (preferably in waste incinerations)
- Simple installation:
  control unit: wall assembly
  probe: special flange DN 80, PN 6, Di=100 mm
- Display of dust content in mg/m³ i.n.dr. possible



Installation example

General technical data

Control unit:	weather-proof aluminium case, dimensions 305 x 240 x 300 mm (W x H x D), 3 kg, IP 65
Probe:	GRP weather protection hood, dimensions 300 x 400 x 1000 mm (W x H x D), ca. 10 kg
Measuring principle:	dust: redundant measurement with 2 triboelectric probes, flow: differential pressure, temperature: Pt 100
Measuring range dust:	dust i.o.: 0 ... 15 (max. 500) mg/m³, dust i.n.: 0 ... 15/45/150/500 mg/m³
Calibration:	by gravimetric reference measurements
Display:	4-line LCD-display
Media temperature:	max. 280 °C (higher temperatures on request)
Ambient temperature:	-20 ... +50 °C
Analogue outputs:	4 x 4 ... 20 mA (thereof 2 x dust, temperature, flow)
Digital signals:	6 potentialfree contacts (failure, maintenance, limit value 1 and 2,maintenance request, measuring range)
Power supply:	110 VAC, 230 VAC bzw. 24 VDC