

DF 252

CONTINUOUS GAS VELOCITY MEASUREMENTS OF FLUE GAS AND AIR STREAMINGS



**FLOW RATE MEASUREMENT USING
THE DYNAMIC PRESSURE
MEASUREMENT PRINCIPLE**

DF 252

Continuous measurement of flow velocity of flue gas and air streamings



For the operation of a facility with streaming gases (e.g. flue gas, air, etc.) the continuous registration of the exhaust gas velocity respectively the flow as well as the temperature are often of substantial importance.

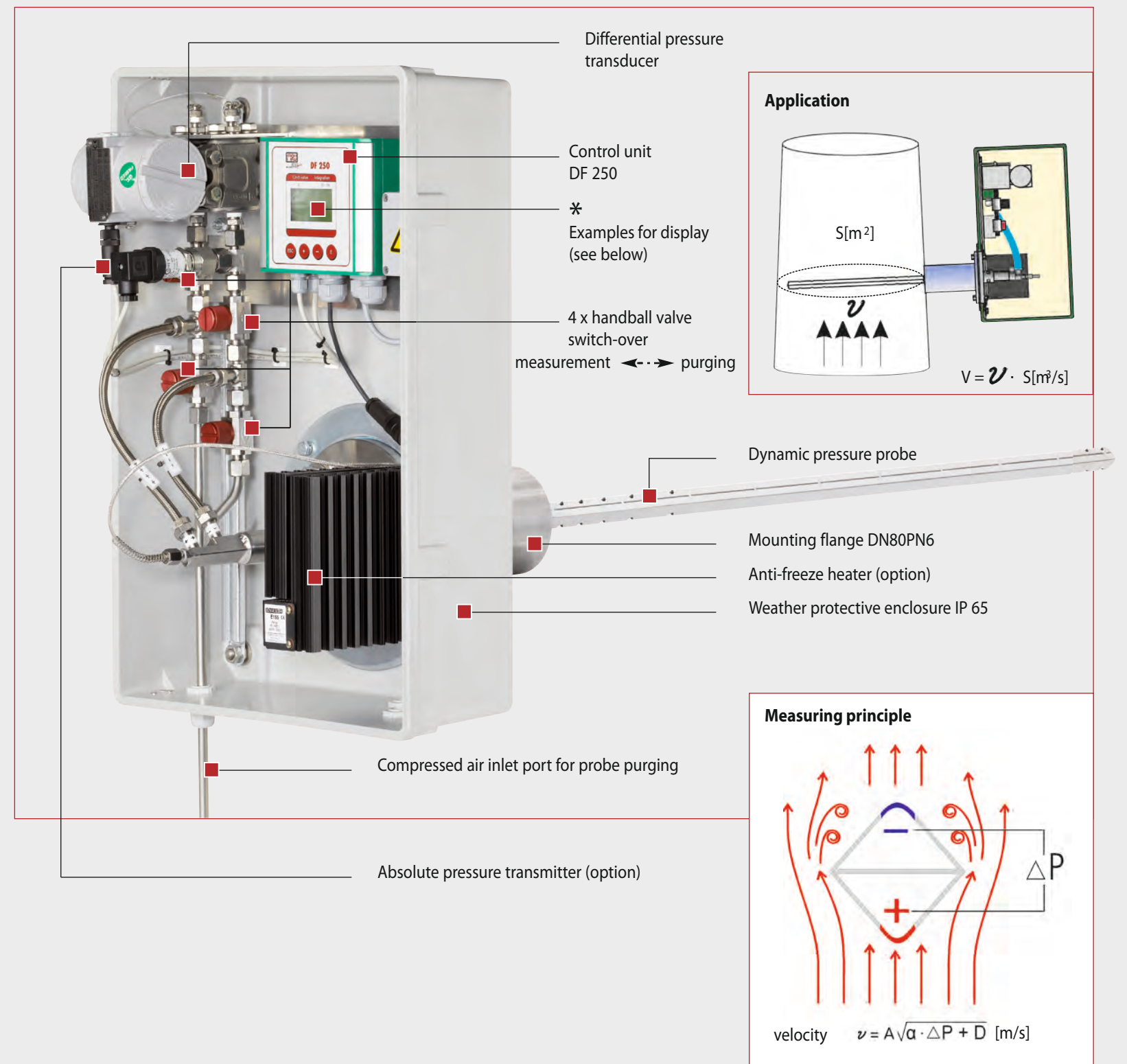
In case of continuous emission measurements the mass of pollutants has to be disclosed additionally (mass flow [kg/h]).

The flow measuring device DF 252 is a measuring system for the continuous registration of gas-, air velocity and temperature of gas flows in pipelines.

Moreover it is possible to display the flow in operational or norm state. The use of the back-pressure and Pt100-measuring principle guarantees a device simply to install and handle with the smallest possible influence of the velocity profile.

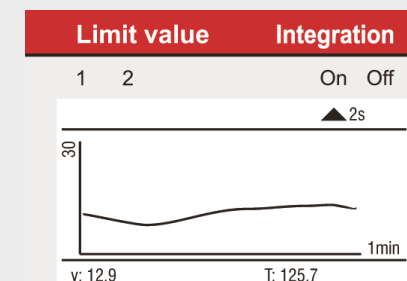
Advantages of the system:

- Compact system of probe and control device, therefore easy installation
- On-site diagnosis of the facility's state due to a graphical display with high resolution showing on-line diagram
- Display of flow in norm state (i.n.) or operating state (i.o.) possible
- Display options in mbar, m/s, m³/h i.o. or m³/h i.n. as well as °C
- Display of absolute pressure in mbar optionally possible
- Simple installation with DN80PN6 flange for welding
- Low maintenance, handball valves for probe back-purging

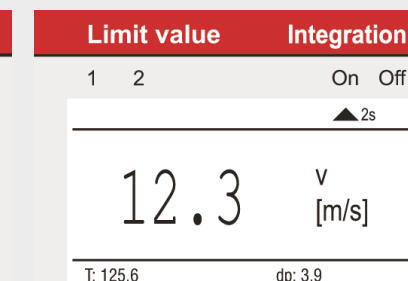


* Examples for display

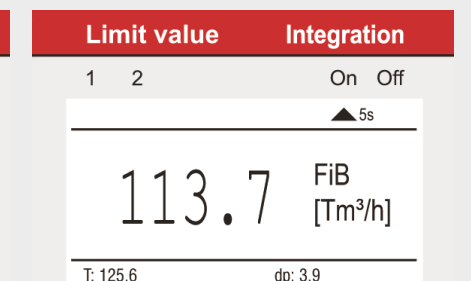
Graphic mode



Text mode



Text mode



DF 252

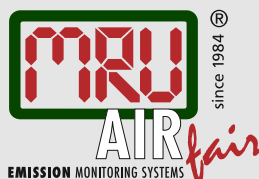
TECHNICAL SPECIFICATIONS

Enclosure	Compact device, control unit is integrated with the probe head (no extra control panel necessary, Anti-freeze heater (option))
Protection class	IP 65 (fibre glass enclosure)
Dimensions	(H x W x D) 440 x 640 x 1.040 mm (incl. probe 500 mm)
Weight	approx. 25 kg
Probe	Dynamic pressure probe with integrated Pt100 temperature sensor 300 mm up to 2.000 mm length, stainless steel
Flange	DN80PN6
Control unit	4 keys for parameterisation and operation Dot-Matrix-display with graphic diagram
Measuring ranges	Velocity: 3 ... 30 m/s Flow i.o.: 0 ... 1.000 Tm ³ /h Flow i.n.: 0 ... 1.000 Tm ³ /h (1 Tm ³ /h = 1.000 m ³ /h, 1.000 Tm ³ /h = 1.000.000 m ³ /h) Differential pressure: 0 ... 5 hPa (mbar) Temperature: 0 ... 300/600 °C Abs. pressure (optional) 800 ... 1.200 hPa (mbar)
Media temperature	max. 280 °C (higher temperatures on request) min. +5 °K above dewpoint
Ambient temperature	-20 ... +50 °C (heater required for temperature below freezing)
Flow velocity	from approx. 3 ... 30 m/s
Analogue signals	3 x 4 ... 20 mA (can be chosen between: velocity, flow rate, differential pressure, temperature optionally absolute pressure)
Digital signals	failure, limit value 1 and 2, potential free relay contacts
Power supply	110 VAC, 230 VAC / 50 ... 60 Hz, 15 W, 500 W with anti-freeze heater

Data subject to change without notice.

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MRU-representative:



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