

# Volume flow measuring system

Measuring system to measure flow rate in dry emissions with a probe using the differential pressure principle

## Features

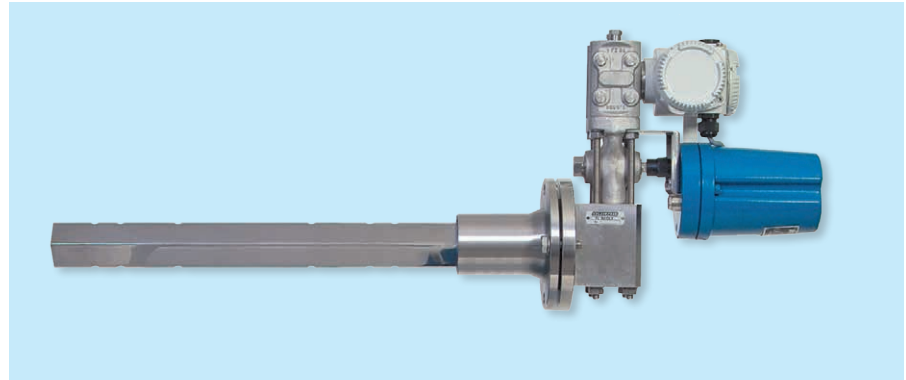
- Reliable measurement of the gas velocity even at high temperatures
- Calculation of volume flow at standard conditions
- Automatic zero check option
- Certified, cost effective measuring system
- Versions with or without counter-support and for point measurement
- Extremely low maintenance, maintenance interval 6 months
- Convenient operation via remote access with web interface

## Applications

- Volume flow measurement at high temperatures
- Plants with large or small flue cross-sections
- Volume flow measurement at high pressure

## Approvals

- Suitability-tested by the TÜV Cologne, test report 936/21218492/A
- Approved and certified acc. to EN 15267-3
- MCERTS



## Measuring principle

The D-FL 100 measuring system operates according to the differential pressure principle. The probe has two separate chambers between which the flow builds up a differential pressure. The evaluation unit determines the gas velocity and the volume flow (norm conditions or standard conditions) from the differential pressure, taking into account gas temperature and gas pressure.

## Models

- **D-FL 100 probe assembly** with assembly of measuring transducer on the probe
- **D-FL 100 hose assembly** with the measuring transducer connection via hose line

## Probes

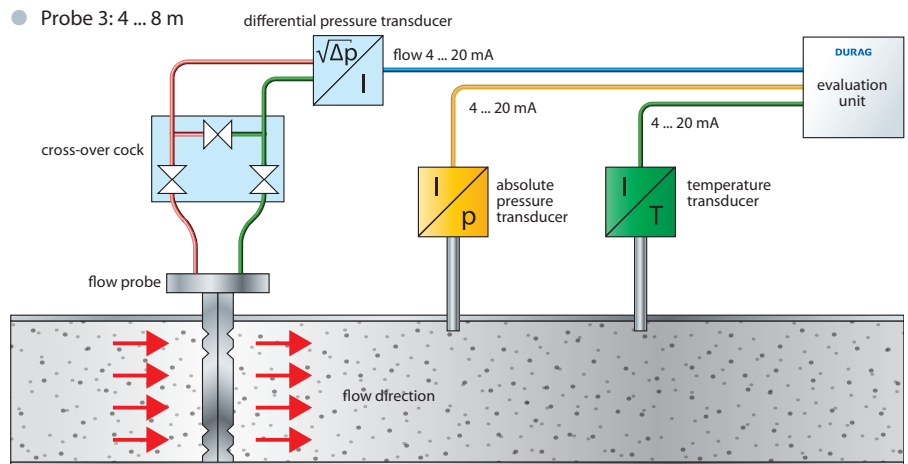
- Probe 1: 0.4 ... 2 m
- Probe 2: 2 ... 4 m
- Probe 3: 4 ... 8 m

## System components

- Flow probe
- Mounting flange
- Differential pressure transducer
- Cross-over cock
- Probe adapter
- Evaluation unit D-FL100-20
- Absolute pressure transducer
- Temperature transducer
- Counter-support (option)

## Options

- Universal operating unit D-ISC 100
- Service software D-ESI 100
- Weather protection covers
- Automatic back purging device
- Special designs in other materials for applications with particularly aggressive exhaust gases or high gas temperatures
- Differential pressure transducer in Ex-version



<b>measurements</b>	flue gas velocity, volume flow	<b>digital outputs</b>	2 relay outputs, permissible load 48 V / 0.5 A
<b>measuring ranges</b>	0 ... 3000000 m <sup>3</sup> /h / 2 ... 50 m/s	<b>measuring outputs</b>	0/ 4 ... 20 mA/ 500 Ohm, Modbus RTU, RS485
<b>measuring principle</b>	differential pressure	<b>zero point drift</b>	<0.5% of measuring range
<b>flue gas temperature</b>	above dew point, -20 ... 450°C	<b>power supply</b>	Sensor power supply 24 VDC ±10%, 0,5 A, 90 ... 264 VAC, 48 ... 62 Hz (option)
<b>flue gas pressure</b>	±200 hPa		
<b>duct diameter</b>	0.4...8 m	<b>dimensions (h x w x d)</b>	probe: 380 x 160 x (300 + probe length) mm
<b>ambient temperature</b>	-20 ... +50°C	<b>weight</b>	32 kg + 6,8 kg/m probe length
<b>protection</b>	IP65, Ex optional		

