




# Gas Flow Measurement

High-precision, non-invasive gas flow measurement, easy to set up at an affordable price. Measurement not affected by humidity or solids.

Measuring Task		Method		Medium	
	Gas flow measurement		Ultrasound		Natural gas

## Features

- Medium: natural gas
- Pipe Ø: 80 to 1200 mm
- Material: steel
- Temperature: 15°C to 30°C
- Pressure: 30 to 120 bar
- ATEX zone 1 / zone 2



Stable fixation of the clamp-on ultrasonic transducers in the Variofix rail



The flow computer integrated in the transmitter allows the processing of external temperature and pressure measurements and thus conversion of the volume flow measured into standard volume or mass flow

## Measuring Task.....?

In natural gas transport and storage units it is necessary to monitor the internal gas flows, whether for control purposes (measurement precision 5 %) or for balancing (measurement precision 1-2%). These measuring tasks were previously realized with fixed measurement systems installed in the piping, either with orifice plates (differential pressure method) or with wetted ultrasonic systems.

## Solution.....!

The newest advances in ultrasonic technology make it possible to realize this measuring task in a non-invasive manner. The transducers installed in zone 1 solely measure the volume flow which is then converted in the standard volume flow by the transmitter located in zone 2. The temperature and pressure of the gas are taken into account. Using a chromatograph for the correction of the compressibility coefficients enables an even higher precision of measurement.

## Advantages.....+

- Simple set up of the measuring point
- Low installation and maintenance costs

### Restrictions:

- Pipe Ø ≥ 80 mm
- Pressure ≥ 30 - 40 bar
- Flow velocity up to 25 m/s

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