Technical data

Ultrasonic Transducer (Transmitter/Receiver)   Ultrasonic Transducer (Transmitter/Receiver)
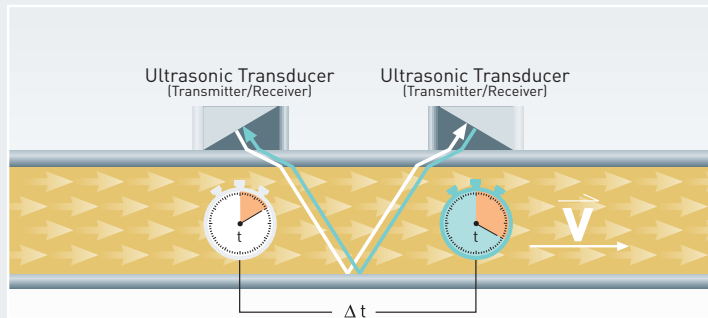
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FLUXUS® F601 is available in three versions: Standard, Energy, and Multifunctional. These versions differ in their equipment with signal inputs and outputs (see table below).
The transducers need to be selected according to the application. Transducers are available for a diameter range from DN 6 to DN 6500 and for temperatures from −40 °C to 400 °C.

Our application engineers will be happy to assist you for a precise adaptation of the measuring system to your requirements.

Measuring principle
The Transit Time Difference Correlation Principle makes use of the fact that the time-of-flight of an ultrasonic signal is affected by the flow velocity of the carrier medium. Like a swimmer working his way across a flowing river, an ultrasonic signal travels slower upstream than downstream.
Our instrument works according to this transit-time principle: an ultrasonic pulse is sent downstream through the medium, another pulse is sent upstream. By measuring the transit time difference, the average flow velocity can be determined. The volume flow can then be calculated out of the flow velocity and the pipe parameters.

General technical specifications

Transmitter:	F601
Quantities of measurement:	volume flow, mass flow, energy flow (optional), flow velocity
Operating time with battery:	>14 h
Operating temperature:	−10 °C ... 60 °C
Flow channels:	2
Degree of protection:	IP65 acc. to EN60529
Flow velocity:	(0.01 ... 25) m/s
Resolution:	0.025 cm/s
Repeatability:	0.15 % of reading ± 0.01 m/s
Accuracy*	
– with 7-point wet calibration:	1.2 % of reading ± 0.01 m/s
– with field calibration:	0.5 % of reading ± 0.01 m/s**
Inputs and outputs:	**Standard:** Outputs: 2 x current, 2 x binary **Energy:** Inputs: 2 x Pt 100/Pt1000; Outputs: 2 x current, 2 x binary **Multifunctional:** Inputs: 2 x Pt 100/Pt1000, 2 x current; Outputs: 4 x current, 2 x binary

* under reference conditions and with v > 0.15 m/s
** if reference uncertainty better than 0.2 %

FLEXIM

Compact, competent...

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... and complete

The complete measuring system and the required accessories fit into a sturdy protective transport case.
The case's dimensions are in accordance with airline requirements for carry-on luggage.

Software FluxData, RS232 and USB cables

Manual and quick-start guide

Measuring tape

Power adapter / charging unit

Coupling compound

Mounting fixture for the transducers

Wall thickness probe

QuickFix pipe mounting system for the transmitter

Flow transducers

FLUXUS® F 601 transmitter