FLUXUS® ADM 6725 for Liquids

The Portable Flowmeter

FLUXUS® ADM 6725 is a portable ultrasonic flowmeter. With its clamp-on transducers and its rechargeable battery, it is an ideal tool for service work.

Since the transducers are mounted on the pipe, they are not subject to wear and tear and can be installed rapidly, without cutting into the pipe and without process interruption. The measurement causes no pressure loss.

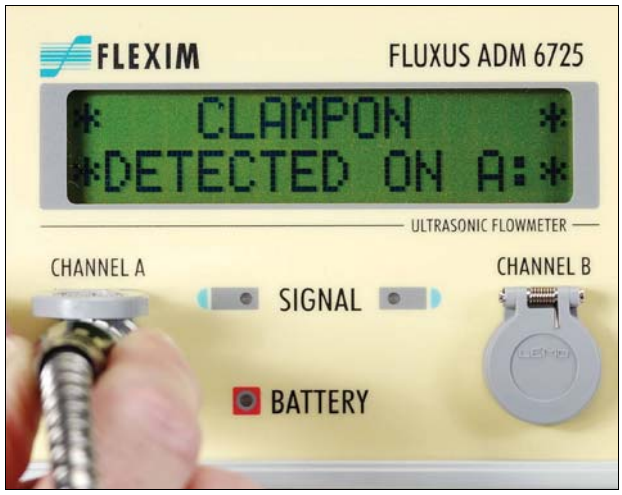
All transducer pairs delivered with the instrument have been calibrated. The calibration data and the transducer parameters are saved in a transducer internal non-volatile memory and are automatically sent to the transmitter upon connection to facilitate the operation of the flowmeter. A zero adjustment is not necessary.

The user interface is adapted to the detected transducers. The instrument solely asks in a logical sequence for the pipe and medium parameters. The physical properties of a large number of pipe materials and media are stored in an internal database. The status display enables the user to judge online the quality and precision of the measurement.

The transducers and their conduit are made of stainless steel and are suitable for use in harsh industrial environment. Watertight transducers and integrated robust transducer cables make it possible to obtain good measurement results over a long period of extensive usage.

Thanks to their exceptional dual-µP technology with DSP, high number of measuring cycles per second and adaptive signal processing, the FLUXUS® ADM 6725 flowmeter produces stable and reliable measuring results even under difficult conditions.

FLUXUS® ADM 6725



Automatic transducer detection

Features

- Portable flow measurement with 2 flow channels
- Automatic transducer detection
- Easy installation without cutting the pipe and without process interruption
- User-friendly operation through practical user dialog
- Two transducer pairs cover the main diameter range
- Transducers for explosive atmosphere available
- Flow calibrated transducers
- High flexibility with amongst others: energy measurement, data logger, inputs, logging of external pressure data, etc.

Technical Data

Measurement	
Measuring principle:	transit time difference correlation principle
Flow velocity:	(0.01...25) m/s
Repeatability:	0.15% of reading ± 0,01 m/s
Accuracy*	
- Standard calibration	± 1.6% of reading ± 0.01 m/s
- Extended calibration (opt.):	± 1.2% of reading ± 0.01 m/s
- Process calibration**:	± 0.5% of reading ± 0.01 m/s
Measurable fluids:	all acoustically conductive fluids with < 10% gaseous or solid content in volume
Transmitter	
Housing	
- Weight:	approx. 3.9 kg
- Degree of protection:	IP54 acc. to EN60529
- Material:	aluminum, powder coated
- Dimensions:	(270x100x180) mm (WxHxD) without handle
Flow channels:	2
Power supply:	rechargeable battery (6 V/4 Ah) or external power supply (100...240) VAC
Operating time with battery:	>10 h
Display:	2 x 16 characters, dot matrix, backlit
Operating temperature:	-10 °C...60 °C
Power consumption:	< 15 W
Signal damping:	(0...100) s, adjustable
Measuring cycle:	(100...1000) Hz (1 channel)
Response time:	1 s (1 channel), 70 ms opt.
Measuring functions:	
Physical quantities:	Volume and mass flow rate, flow velocity, heat flow rate (if temperature inputs are installed)
Totalizers:	volume, mass, heat (opt.)
Calculation functions:	Average, difference, sum
Operating languages:	English, German, French, Dutch, Spanish
Data logger	
Loggable values:	All measured quantities and totalized values
Capacity:	>100000 measured values
Communication	
Interface:	RS232, RS485 optional
Data:	actual meas. value, logged data, parameter records
Software FluxData (optional)	
Function:	Downloading meas. data/ parameter records, graphical presentation, conversion to other formats
Operating systems:	all Windows™ versions

Outputs (optional)	
The outputs are galvanically isolated from main device. - The maximum number of outputs that can be installed depends on the output type. Contact FLEXIM for more information.	
Current	
- Measuring range:	(0/4...20) mA
- Accuracy:	0.1% of reading ± 15 µA
- Active output:	R_{ext} < 500 Ω
- Passive output:	U_{ext} < 24 V, R_{ext} < 1 kΩ
Voltage	
- Measuring range:	(0...1) V or (0...10) V
- Accuracy:	0...1 V: 0.1% of reading ± 1 mV 0...10 V: 0.1% of reading ± 10 mV
- Internal resistance:	R_i = 500 Ω
Frequency	
- Range:	0...1 kHz or 0...10 kHz
- Open collector:	24 V/4 mA
Binary	
- Open collector:	24 V/4 mA
- Reed contact relay:	48 V/0.25 A
- Function as state output:	limit, sign change or error
- Properties of the pulse output (OC):	value: (0.01...1 000) units Width: (80...1 000) ms
Inputs (optional)	
- The inputs are galvanically isolated from the main device. - A maximum of 4 inputs can be installed.	
Temperature	
- Type:	Pt100 four-wire circuit
- Range:	-50°C to 400°C
- Resolution:	0.1 K
- Accuracy:	± (0.2 K + 0.1% of reading)
Current	
- Range:	active: (0...20) mA passive: (-20...20) mA
- Accuracy:	0.1% of reading ± 10 µA
- Active input:	U_i = 15 V, R_i = 50 Ω, P_i < 0,5 W, not short-circuit proof
- Passive input:	R_i = 50 Ω, P_i < 0.5 W
Voltage	
- Measuring range:	(0...1) V or (0...10) V
- Accuracy:	0...1 V: 0.1% of reading ± 1 mV 0...10 V: 0.1% of reading ± 10 mV
- Internal resistance:	R_i= 1 MΩ
Wall thickness gauge (optional)	
Range:	(1.0...200) mm
Resolution:	0.01 mm
Linearity:	0.1 mm
Operating temperature:	
- Standard:	-20°C...+60°C
- High temperature:	0°C...+200°C, for short periods up to +540°C

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

Flow transducers

Clamp-on flow measurement can be used in a wide diameter range (DN 6 to DN 6500) and at temperatures from -40°C to 400°C (also in explosive atmosphere). You will find more information about the transducers in the corresponding specification sheets.

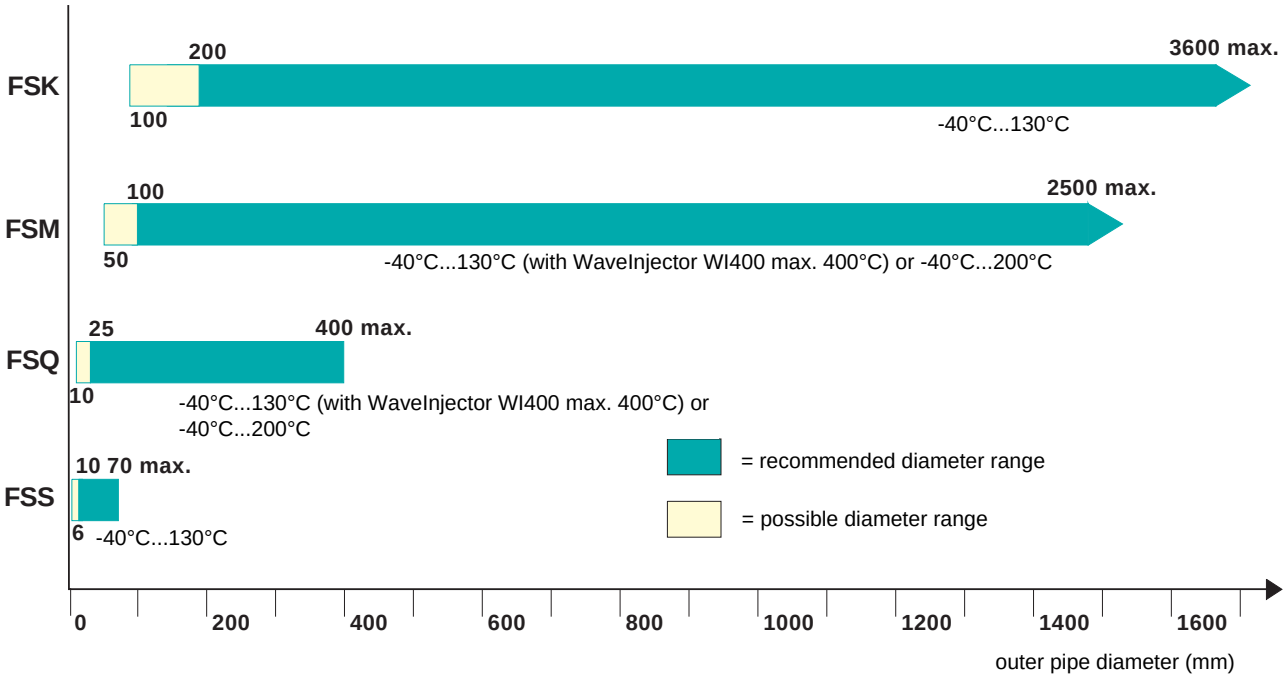
Pipe Diameters and Temperature Range of Frequently Used Transducers

The **recommended diameter range** is the diameter range covered by a transducer under normal measuring conditions (signal damping mainly through the medium, no gas or solid in the medium).

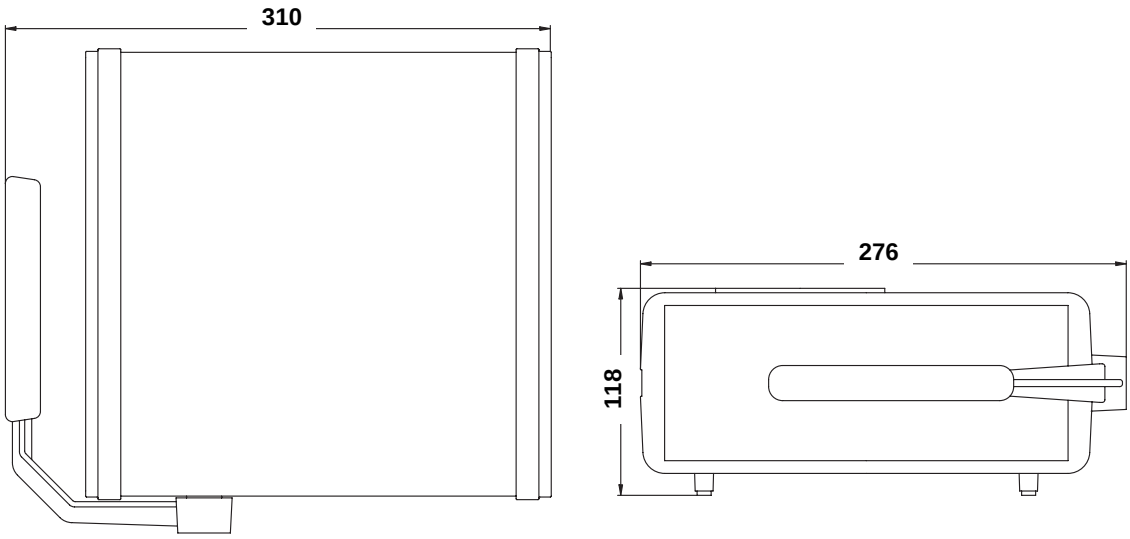
The **possible diameter range** is the range covered by a transducer under good measuring conditions.

The temperature range is the **range of possible process temperatures** for the operation of the corresponding transducers. The range of possible ambient temperatures is identical.

remark: The process temperature range of almost all transducers can be extended to max. 400 °C by means of the WaveInjector®. For more information, see the corresponding specification sheet.

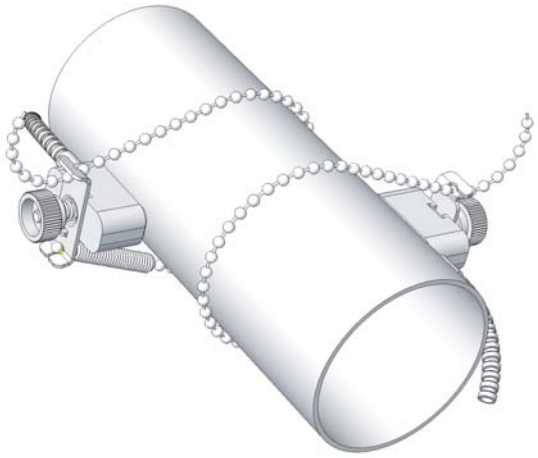


Dimensions of the Transmitter (in mm)

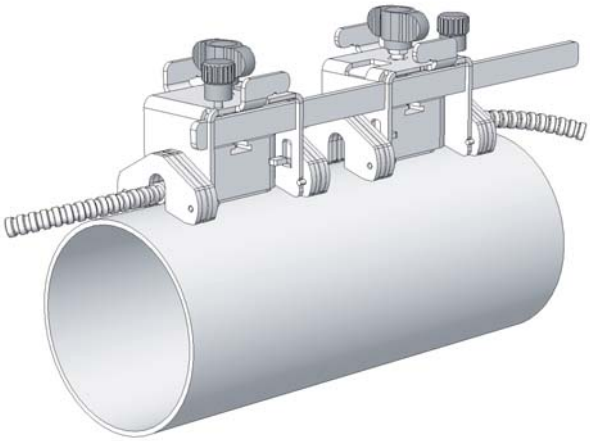


Mounting the Transducers

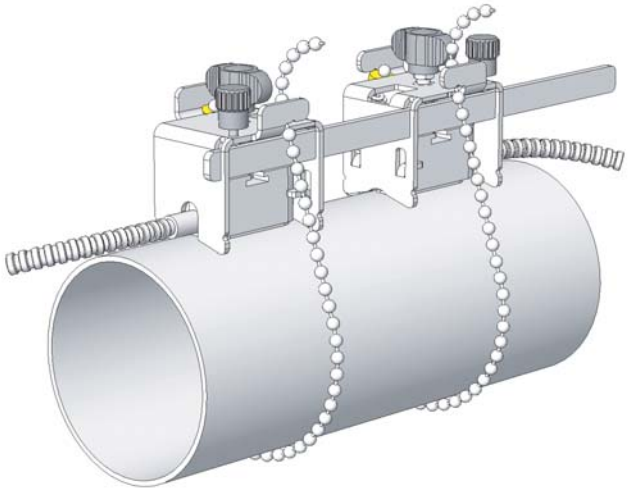
with chains:



with magnetic runners:



with chains and runners:



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