

Portable, quick and reliable

FLUXUS® F/G601 and F/G608

Portable ultrasonic clamp-on gas and liquid flow meters

Accurate

Flexible

Quick

Rugged

Ergonomic



**When measuring
matters**

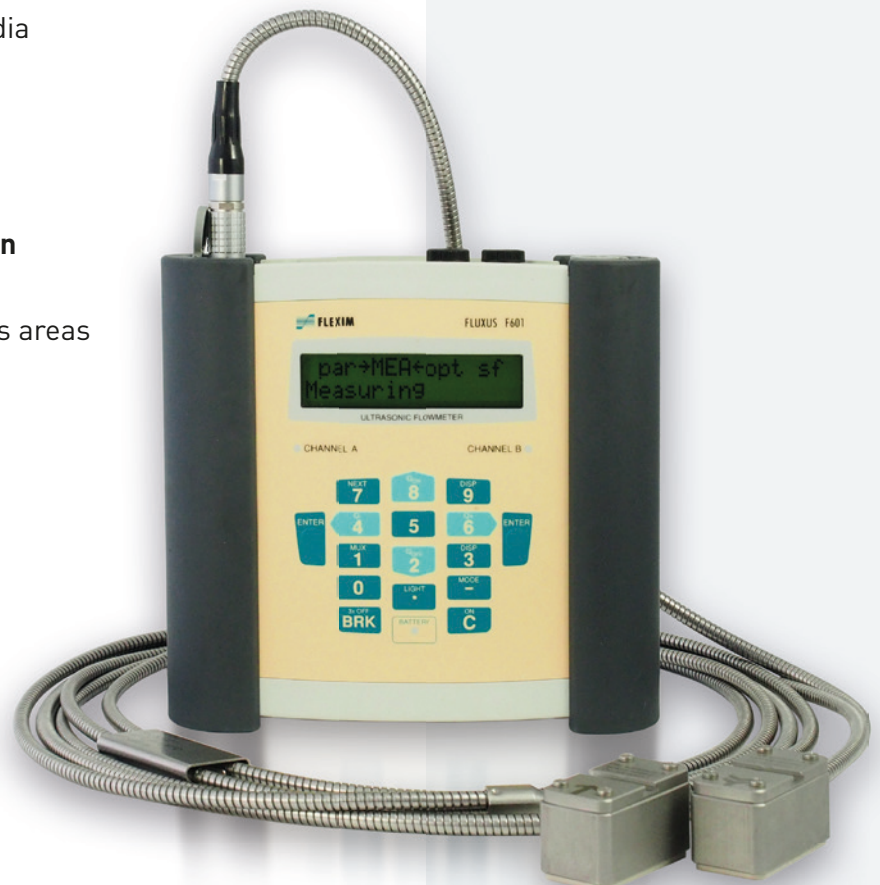
FLUXUS® F/G60X

Mobile flow measurement without compromises



The benefits are evident...

- **Unrivalled accuracy** even at very low as well as high flow rates due to matched transducer pairs and innovative signal processing
- **Reliable measurement** even in difficult conditions such as high solid contents or wet gas
- **High zero point stability** and insensitivity in regard to pipe wall noise and wrong transducer positioning
- **Maximum flexibility** for the measurement of virtually any liquid and gaseous media
- **Quick measurement;** reliable results in no more than 5 minutes
- **Rugged housing and ergonomic design** optimized for daily usage in harsh industrial environments and hazardous areas
- **Long-life marathon battery;** comprehensive energy management with display of remaining capacity





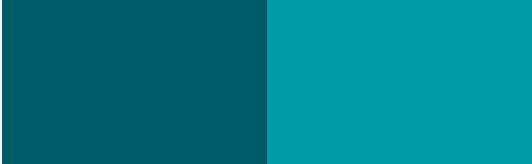
The flexible meter

The portable flow meters FLUXUS® F/G601 and FLUXUS® F/G608 measure the flow of liquids and gases non-intrusively by employing the proven transit-time correlation method. Special ultrasonic transducers are simply clamped onto the outside of the pipe and are never in direct contact with the medium flowing inside. No cutting into the pipe or process interruption is required for installation.

FLUXUS® offers maximum flexibility:

- For virtually any pipe material and media, regardless of the conductivity and pressure level
- Wide application range: two pairs of transducers are sufficient to cover the most common pipe diameters in industrial applications
- The broad transducer range enables flow measurement at pipes sizes from 6 mm to 6500 mm with pipe wall temperatures from -190 °C up to +600 °C and beyond as well as within hazardous areas (ATEX / IECEx and FM certified).
- Highly reliable measurements even at high solid contents or wet gas
- Ideal measurement solution for the determination of a building's or plant's thermal energy consumption and total energy efficiency
- Energy efficient battery management allowing for more than 25 hrs. of remote measurement





Fit for purpose

Reliable measurement in less than 5 minutes



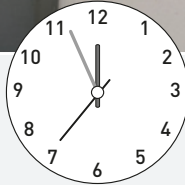
Selection of the measuring point

→ Select a suitable measuring point.



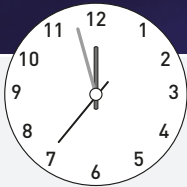
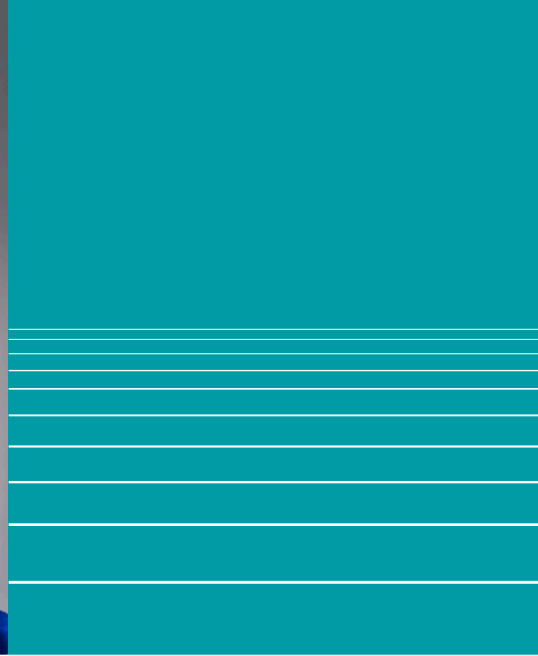
Measurement of the wall thickness

→ Simply select the pipe material from the list and measure the wall thickness with the included probe.



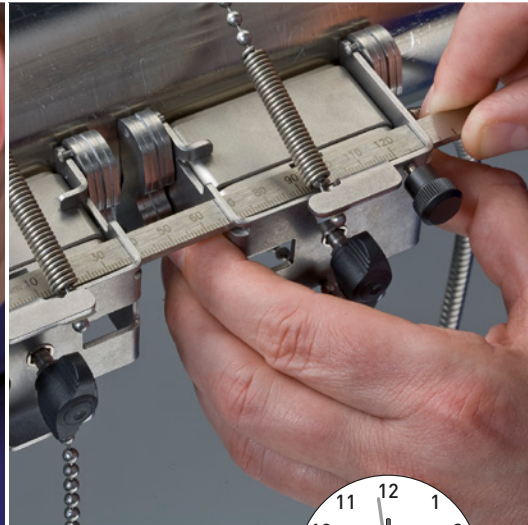
Connection of the transducers

→ Automatic transducer detection and calibration in the device offer maximum safety and ease of use.



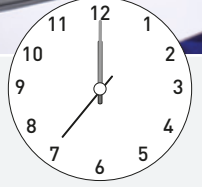
Input of the parameters

- Easy selection of pipe and fluid from the integrated list; input of the pipe dimensions.



Mounting of the transducers

- Apply coupling agent; mount the transducers on the sides of the pipe; set and fix the displayed transducer distance.



Starting of the measurement

- The measured values are shown in the display immediately after the ENTER button has been pressed.

Made for users by users

The features at a glance



Rugged and ergonomic design

- compact and easy to handle
- carbon fibre reinforced housing and steel armored cables designed for industrial usage
- water and dust-tight; resistant against oil, many liquids, and dirt
- multi-functional carrying and set-up handle
- low weight
- QuickFix system for fast mounting in positions where a free hand for carrying is unavailable (e.g. for measurements at great heights)
- ATEX / IECEx and FM certified for usage in hazardous areas

Highly accurate and reliable

- extensive media database of liquids and gases
- proven FLUXUS® electronics, sophisticated transducer matching and automatic compensation of changing ambient temperatures (according to ANSI/ASME MFC 5.1-2011 recommendations) assure an unrivalled zero point stability and no measurement drift
- calibration of transducers and transmitters (traceable to national standards)
- high operational safety in case of media with a high percentage of gas and solids or wet gas
- high accuracy even in non-ideal conditions due to innovative signal processing algorithms, e.g. for the correction of pipe wall echoes and transducer positioning errors





Cutting edge functionalities

- integrated measurement of the pipe wall thickness
- automatic loading of calibration data and transducer identification prevents parameterisation errors, speeds up the set-up and ensures a precise measurement
- portable thermal energy measurement (ideal for energy audits, optimisation of heating systems, energy consumption measurements, etc.)

Easy operation

- fast set-up due to automatic loading of transducer data
- intuitive user interface
- high-contrast, easy-to-read display with backlight

Excellent battery management

- precise display of remaining capacity
- more than 25 hours of remote measurement with lithium-ion batteries
- no self-discharge, no memory effect

Sturdy case

- extremely sturdy case; may even be used as a step
- intuitive stowing and finding of all components
- watertight (IP67)
- offers protection in humid and dirty environments



FLUXUS® F/G60X

A meter for all situations



Applications

Unmatched in performance, the handy and versatile FLUXUS® F/G60X is ideally suited for the service and maintenance activities in virtually any industrial environment, for instance when commissioning plants, during the maintenance and inspection of permanently installed meters, for checking of pumps or control valves, or as a temporary substitute for defective instruments.

Service

- Verification tasks or temporary replacement of defective meters
- Measurement support during the commissioning of plants
- Performance and efficiency measurement – also within the scope of DIN EN ISO 50001, e.g. during the:
 - Evaluation and assessments of energy audits
 - Pump performance controls
 - Monitoring of regulating valves

Chemical Industry

- Non-intrusive measurement at liquids or gas filled lines for process control and optimization (also in hazardous areas)
- Verification of existing flow measurement systems
- Measurement of heat transfer media (e.g. thermal oils at extreme temperatures)
- Flow measurement at cryogenic processes
- Verification of the degree of efficiency of a heat exchanger as well as heating and chiller plants
- Pump monitoring and compressed air balancing

Oil & Gas

- Measurement of operational and standard volume streams during exploration, processing, storage and transport of natural gas
- Measurement at hydrocarbon filled pipes within refineries and petrochemical plants (even at extreme temperatures up to 600 °C and beyond or as low as -190 °C at cryogenic (LNG) operations)

Water Supply / Wastewater Services

- Leak detection
- Verification of water meters
- Verification of flow rates within the water distribution network (also for wastewater with increased solid contents)
- Treatment dosage control
- Pump control

Producing Industry & Facility Management (HVAC)

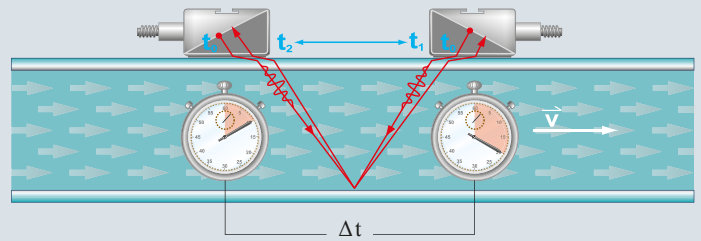
- Optimization of heating and air conditioning systems in large building complexes
- Pump control
- Short-term replacement of defective wetted heat counters
- Compressed air balancing and leak detection

Pharmaceutical & Beverage Industries

- CIP- and SIP-Optimization tasks
- Consumption optimisation



Technical data



The portable FLUXUS® flow meters are available in various, application tailored, versions:

FLUXUS® F601 as the standard portable flow meter for measurement at liquid filled pipes, with the option **Energy** for thermal energy measurement.

FLUXUS® G601 for the flow measurement at gas and liquid filled pipes and as combined measurement device, **FLUXUS® G601 CA Energy**, for the flow measurement of liquids and gases as well as thermal energy quantification and compressed air balancing. As **FLUXUS® F608, G608 and G608 CA Energy**, our range of portable liquid and gas flow meters are also applicable for usage in hazardous areas (ATEX, IECEx Zone 2 and FM Class I, Div. 2 certified).

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

Technical facts

FLUXUS® F601 FLUXUS® G601		FLUXUS® F608 for hazardous areas FLUXUS® G608 for hazardous areas	
Measurement uncertainty (volumetric flow rate)			
FLUXUS® F601	±1 % of reading ±0.005 m/s	FLUXUS® F608	±1 % of reading ±0.005 m/s
FLUXUS® G601	± 1...3 % of reading ±0.005 m/s	FLUXUS® G608	± 1...3 % of reading ±0.005 m/s
Ex zone transmitter:			
FLUXUS® F/G601	only safe area	FLUXUS® F/G 608	ATEX/IECEx Zone 2
Power supply			
F/G 601/608	Li-ION 7.2V/6.2Ah Operat. time >25h		
transducer for Ex zones:			
FLUXUS® F/G601	---	FLUXUS® F/G 608	ATEX/IECEx Zone 1/Zone 2
transducer for pipe sizes range:			
FLUXUS® F601	6 mm ... 6500 mm	FLUXUS® F608	10 mm ... 6500 mm
FLUXUS® G601	7 mm ... 1600 mm	FLUXUS® G608	7 mm ... 1100 mm
transducer for temperature range:			
FLUXUS® F601	-40°C ... +200°C/WI: -200°C ... +600°C	FLUXUS® F/G608	-40°C ... +200°C
FLUXUS® G601	-40°C ... +200°C		
Outputs:			
FLUXUS® F601	4-20mA active/passive pulse/frequency/binary	FLUXUS® F608	4-20mA active/passive pulse/frequency/binary
Inputs:			
FLUXUS® F/G601	PT100/PT1000 4-20mA passive	FLUXUS® F/G608	PT100/PT1000
Digital communication:			
FLUXUS® F/G601	Modbus RTU	FLUXUS® F/G608	---

For more detailed Information please download the Technical Specifications



Compact, competent...

... 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.

Please see the price lists for details on the scope of delivery and the accessories. Special accessories are possible. Our application engineers will be pleased to advise you.



FLEXIM

In partnership



For more than twentyfive years, FLEXIM has led the way nationally and internationally for process instrumentation in many areas of industry. FLEXIM has repeatedly set standards as a technology leader and pioneer in the area of clamp-on ultrasonic flow measurement of liquids and gases. In addition to non-invasive flow measurement, innovative process analytical technologies using ultrasound or refractometry are within our portfolio of products.

Effective and forward-looking

We're not resting on our laurels. Every year, we invest generously in research and development to further strengthen our position as a technological leader. In addition to that, we maintain close contact with our customers. Innovative and reliable products that meet the requirements of end users are the result.

Customer service at FLEXIM

FLEXIM is not only a manufacturer of measuring instruments, but a provider of customer-driven solutions and services. As the user, you are at the centre of all our efforts. Our corporate philosophy is to provide you with the most suitable and highest quality measuring system for your measuring tasks and to be a reliable partner who can offer you the best possible support and service.

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