



Flexim™ FLUXUS F/G631

Portable Ultrasonic Flow Measurement of Liquids, Thermal Energy, Gases, Compressed Air and Steam

For operators in pharmaceutical, biotech, and medical facilities who need fast, reliable flow insight exactly when and where it's required, the Emerson's Flexim FLUXUS F/G631 portable ultrasonic clamp on flow meter delivers precise, on demand measurement of liquids, thermal energy, gases, compressed air and steam - without shutdowns or permanent installation.

Maintaining visibility into flows, energy usage, and process conditions is an ongoing challenge - especially in highly regulated environments where any intervention in the process must be carefully controlled and documented.

The 631 is an ultimate advancement in flow measurement technology. Designed for temporary and investigative field use, it supports common tasks such as verifying existing installations, inspection, maintenance, and energy management. It also ensures immediate measurement capability when permanent systems are unavailable.

Non-intrusive measurement across virtually any pipe material and diameter, combined with advanced correction for disturbed flow profiles and high-performance gas measurement, enables reliable results even under challenging conditions - providing answers wherever and whenever they are needed.

High-performance Flow Measurement on the Go

✓ One for all – including steam

Leveraging multiple measurement principles, the 631 can measure liquids, thermal energy, gases as well as both low- and high-temperature steam.

✓ 100% hygienic

Non-intrusive measurement from outside the pipe, with no contact to the fluid, allows for maintaining strict hygiene standards and avoiding any risk of contamination or process disruption.

✓ Ease of use

The series delivers a consistent and intuitive user experience, with quick setup – a liquid measurement can be running in under five minutes.

✓ Unrivalled Performance

Advanced signal processing and diagnostics ensure exceptional reliability and accuracy, even in the most demanding environments.

✓ Outstanding Agility

Synchronized Channel Averaging measurement allows for instantaneous flow profile compensation despite highly dynamic flows and turbulence induced by difficult inlet conditions.

✓ Space Efficiency

Disturbance correction technology allows accurate measurements in tight spaces with reduced inlet lengths.

Key Features

- Non-intrusive installation without process interruption or pipe modification
- No pressure loss, no risk of leaks
- New, robust, and flexible mounting system improves measurement adaptability
- Modbus RTU process interface (optional)
- Wide turndown ratio for varying flow conditions
- Graphical display visualizes flow trends and diagnostic signal SNAPS.

Main Applications

- Verification of GMP (Good Manufacturing Practice) relevant in-line flow meters
- Verification of flow velocity in Water for Injection (WFI) and Pure Water (PW) loops
- Measurements relevant to energy management
- Immediate coverage of failed permanent meters
- Check metering and troubleshooting
- Evaluation of consumption and processes
Fire water pump checks



TECHNICAL FACTS

	Flexim FLUXUS F631	Flexim FLUXUS G631
Transmitter		
Process Media	all acoustically conductive liquids with < 10 % gaseous or solid content in volume	- all acoustically conductive gases, e.g. nitrogen, air, oxygen, hydrogen, argon, helium, ethylene, propane - all acoustically conductive liquids with < 10 % gaseous or solid content in volume - optional: saturated steam, superheated steam
Flow channels	2	
Measurement uncertainty (volumetric flow rate)	± 1 % MV ± 0.005 m/s (0.02 ft/s)	±1 to 2 % MV ±0.005 m/s (0.02 ft/s)
Response time	down to 0.02 s	
Repeatability	±0.15% of reading, ±0.005 m/s (±0.02 ft/s)	
Power supply	100...240 V/50...60 Hz (power supply unit: IP40, 0...40 °C (32...104 °F)) 10.5...13.5 V DC (socket at transmitter) integrated battery	
Outputs	2 switchable current and 2 multi-purpose outputs (MPO)	
Inputs	Temperature, current	
Service interface	USB-C	
Ingress protection (meter / during measurement)	IP65 & IP67	
Battery operating time	25 h (up to 80 days in low-power mode)	
Available transducers		
Pipe size range (inner diameter)	6mm ... 6.5m (0.24...256 in)	7mm ...1.6m (0.28...63 in)
Temperature range (pipe wall)	-40...200 °C (-40...392 °F) (extension possible with WaveInjector)	
Flow velocity range	0.01...25 m/s (0.03...82 ft/s)	0.01...35 m/s (0.03...115 ft/s), depending on pipe diameter, transducer and application



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