



Flexim™ FLUXUS F/G631

Portable Ultrasonic Flow Measurement of Liquids, Gases, and Steam

For chemical plant operators 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, gases, and steam - without shutdowns or permanent installation.

Reliable flow insight is often needed when production rates shift, utilities are rebalanced, energy performance is reviewed, or maintenance teams need fast confirmation after a change. When flow data is missing or uncertain, it can slow troubleshooting, complicate audits, and hide losses across water, steam, and gas networks.

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 pre-evaluation ahead of permanent meter installation. 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 when and where they are needed.

High-performance Flow Measurement on the Go

✓ **One for all – including steam**

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

✓ **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.

✓ **Optimized for Harsh Conditions**

Long-term, outdoor, remote measurement is now possible thanks to the low-power mode and the IP65/67 ingress protection standard.

Key Features

- Non-intrusive ultrasonic technology for installation without process interruption and pipe modifications
- 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

- Verifying existing installations
- Surveys of pump and compressor curves
- Monitoring heat exchangers
- Immediate coverage of failed permanent meters
- Check-metering and troubleshooting
- Leak and bypass flow detection
- Inspection measurements of installed inline flow meters
- Cooling water distribution checks
- Control of fire water pump system
- Fuel gas network checks
- Compressed air surveys
- Pre-evaluation before installation of permanent flow meters



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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