

Flexim™ FLUXUS F731PW & F831PW

The Smart Choice for Process Water Flow Measurement in Hazardous Areas

The Flexim FLUXUS F731PW and F831PW are Emerson's latest advancement in ultrasonic flow measurement, purpose-built to meet the specific needs of process water applications in the chemical industry and in oil & gas extraction and processing. Designed with a clear focus on simplicity and cost-efficiency, these new models offer a streamlined solution for users who require reliable flow data without the complexity or cost of intrusive flow meters.

Both measuring systems are certified for use in hazardous environments. Their robust construction and explosion-proof housing ensure safe and dependable operation even in the most demanding industrial settings. The devices support both single and dual channel configurations and integrate seamlessly into existing systems via standard analog and digital communication protocols, including 4–20 mA and HART.

What sets the F731PW and the F831PW apart is their ability to deliver high-performance flow measurements without the need for process interruption or pipe modifications. Their clamp-on design eliminates the risk of leaks, pressure loss, or contamination, making them a perfect fit for facilities prioritizing operational integrity and environmental safety.

Explosion-Proof. Budget-Friendly. Application-Focused.

✓ Explosion-Proof Design

The F831PW is certified for FM Class I/Div. 1 and ATEX/IECEX Zone 1, and the F731PW is FM Class I/Div. 2 and ATEX/IECEX Zone 2 rated.

✓ Water-Only Optimization

Purpose-built for water-related media, F731PW and F831PW are not compatible with other fluids — a deliberate design choice that enables significant cost savings for users with straightforward water flow measurement needs.

✓ Clamp-On Simplicity

Like all Flexim meters, F731PW and F831PW are non-intrusive, requiring no pipe cutting, no process interruption, and no maintenance.

Ideal Applications



Produced water & water injection



Raw water intake monitoring





Cooling water management

Key Features

- Non-intrusive ultrasonic technology for installation without process interruption and pipe modifications
- Single or dual channel options for flexible installation
- Minimized engineering efforts on water monitoring and consumption reduction measures
- 4–20 mA and HART outputs for seamless integration
- Wide turndown ratio for varying flow conditions
- No pressure loss, no risk of leaks



TECHNICAL FACTS

Transmitter	Flexim FLUXUS F731PW	Flexim FLUXUS F831PW
		
Fluid type	Water, seawater, produced water, water/glycol mixtures	
Measurement uncertainty (volumetric flow rate)	± 1% MV ± 0.005 m/s	
Response time	1 s (1 channel), option: 0.02	
Repeatability	0.15 % MV ± 0.005 m/s	
Number of measuring channels	1 or 2	
Explosion protection of transmitter	FM Class I / Div. 2 ATEX/IECEX Zone 2	FM Class I/Div. 1 ATEX/IECEX Zone 1
Power supply	100...240 V / 50...60 Hz or 20...32 V DC	
Outputs	4...20 mA active/passive 4...20 mA HART active/passive	
Digital outputs	Pulse/frequency/binary	
Digital communication	Modbus RTU Profibus PA Foundation Fieldbus BACnet MS/TP Modbus TCP (FM Class 1 Div 2 only) BACnet IP (FM Class 1 Div 2 only)	Modbus RTU HART Profibus PA (optional Ex-ia) Foundation Fieldbus (optional Ex-ia)
Available transducers		
Pipe size range (inner diameter)	6...6500 mm	
Temperature range (pipe wall)	-40...+235 °C	-40...+225 °C



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