



## Non-Intrusive Ultrasonic Clamp-on Flow Measurement of Liquids and Gases

# FLUXUS® F/G80X For Operation in Hazardous Areas

Chemical Industries

Petrochemical Industries

Downstream - Refining

Midstream -  
Hydrocarbon Transport

E&P - Offshore / Onshore



**FLEXIM Sets Standards**  
*when measuring matters*

# FLUXUS® F/G80X

## Specifically Designed for Demanding Environments

### From Oil & Gas Exploration and Production to Petrochemical and Chemical Processing

From wellhead to refinery, the flows of crude oil, natural gas and refined products need to be measured every step of the way. Harsh environments with corrosive atmospheres offshore or hot and dirty applications during crude oil refining require tough solutions.

Also during chemical processing, liquid media such as acids, caustics as well as highly viscous organic substances or highly pressurised gas lines place enormous material and mechanical stress upon wetted flow measurement technologies.

#### FLEXIM offers the better alternative:

- Being non-intrusive, the measurement system never gets into contact with the media inside the pipe and therefore does not suffer any wear and tear.
- Ultrasonic transducers are simply clamped onto the outside of the pipe - plant shut-downs for installation are a thing of the past.
- The measurement system can never be the cause for a potential pipe leak, cannot be prone to clogging and is virtually maintenance-free.
- It is suitable for all pipe sizes from 10 mm (3/8 inch) diameter upwards, with no limitation on pipe material, wall thickness and media temperature.
- FLEXIM's ultrasonic flowmeters offer exceptional reliability and accuracy even at high and low flows due to their matched, calibrated and temperature compensated transducer pairs as well as sophisticated internal signal processing.
- With measurement from outside of the pipe wall, the system offers a long lifetime as well as high energy efficiency as pressure losses inside the pipe can be avoided.

FLEXIM's permanently installed and portable flowmeters for explosive and hazardous areas have already been proven worldwide in many demanding applications with major operators.

#### Chemical Industry

- Hazardous Organic and Inorganic Media
- Acids and Caustics
- Process Gases
- Polymerisation Processes
- Infrastructural Processes

#### Hydrocarbon Products Handling

- Hydrocarbon Products Flow Measurement
- Pipeline Integrity Monitoring
- Allocation Terminals
- LNG Terminals
- Underground Gas Storage
- Gas Distribution and Compressor Stations

#### Crude Oil Refining and Gas Processing

- Distillation Columns
- Cracker and Coker Units
- Petrochemical Processes
- Gas Processing

#### Oil & Gas Exploration On- & Offshore

- FWKO and Separator Outlets
- Coalescers
- Scrubbers and Reboilers
- Produced Water Management
- Chemical Injection



## Advantages

- Bi-directional flow measurement of liquids and gases in ATEX / IECEx Zone 1 and FM Class I, Div. 1 areas
- Very cost effective:
  - No pipe works
  - No process shut-downs
  - Virtually maintenance-free
- Matched, paired and wet calibrated flow transducers (traceable certification to national standards)
- Excellent zero point stability and drift-free
- Wide turndown ratio
- Independent of pipe size, material, operating pressure, medium and temperature
- High tolerance to entrained solids and gases
- Free of wear, tear and abrasion
- Not prone to clogging or corrosion
- No pressure loss or source of potential leaks and fugitive emissions

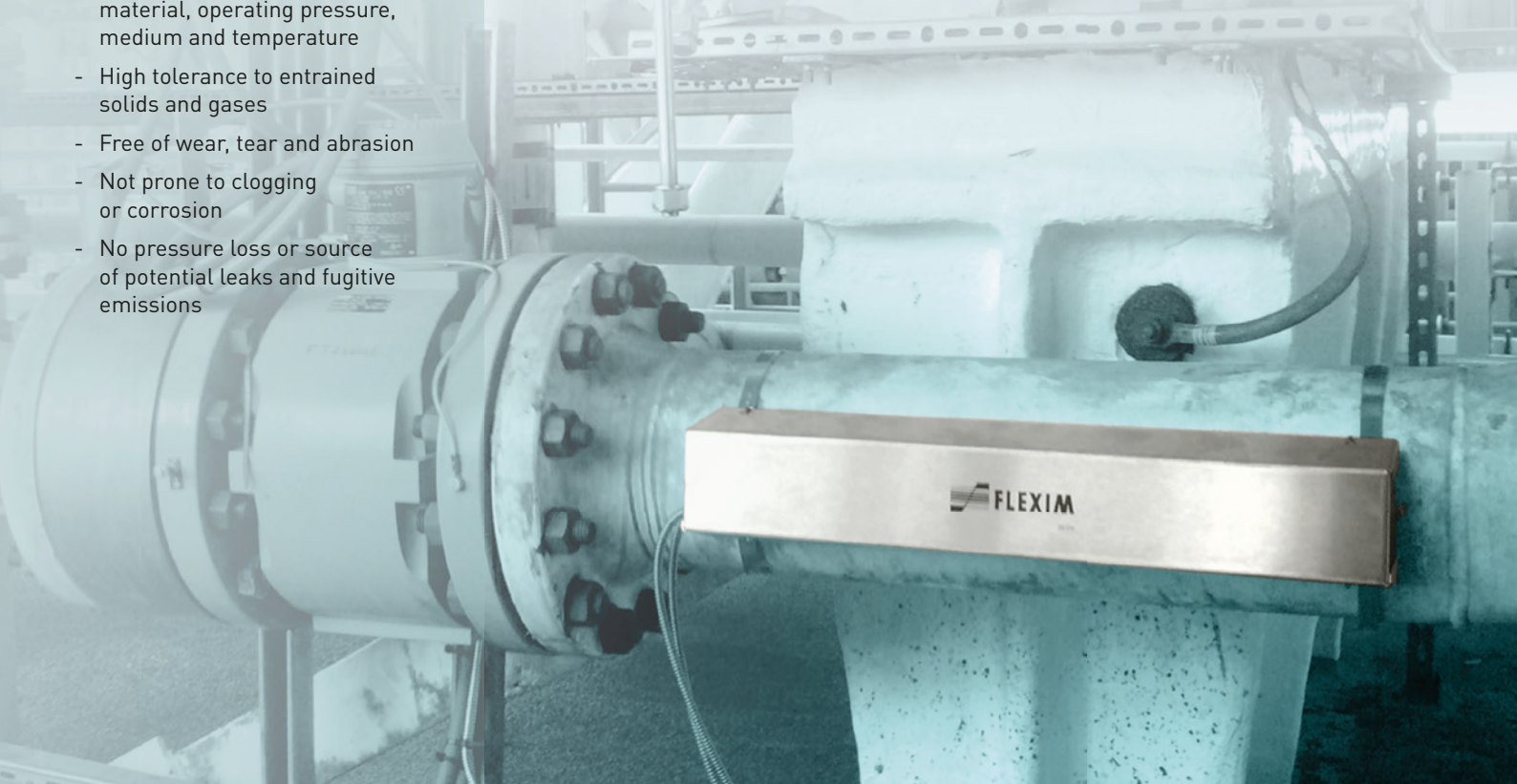
## Rugged, Reliable, Versatile

With its flameproof housing and stainless steel (SS316, IP68 optional) corrosion resistant transducers residing inside the VARIOFIX mounting fixture, ensuring a permanent contact pressure and high mechanical stability, the FLUXUS® F/G80X series is perfectly suited for every demanding industrial application.

The connection and electronic compartment of the FLUXUS® F/G80X series are hermetically sealed, so that the measurement system provides maximum operational reliability and safety, being ATEX / IECEx Zone 1 and FM Class I, Div. 1 approved.

Not only is the FLUXUS® F/G80X rugged and reliable, it is precise. Thanks to carefully matched and temperature compensated transducers (fully ANSI / ASME MFC 5M compliant) the FLUXUS® F/G80X offers an unmatched zero point stability and precise bi-directional flow measurement over an virtually unlimited turndown range.

The F808 single channel liquid flow meter is also available with an extra low flow option, allowing reliable and repeatable measurements, typically between 3 and 20 l/h on line sizes from ¼ to 1½ inches.



# FLUXUS® F/G80X

## ATEX / IECEx Zone 1 and FM Class I, Div. 1 approved liquid and gas flow meter



### Technical facts

FLUXUS® F801	Offshore Flow Meter for liquids
FLUXUS® G801	Ultrasonic Gas Flow Meter for Offshore Environments
FLUXUS® F808	Single channel flow meter for hazardous areas
FLUXUS® F809	Permanent Flow Meter for Hazardous Areas
FLUXUS® G809	Permanent Gas Flow Meter for Hazardous Areas
Measurement uncertainty (volumetric flow rate)	
Liquid media:	±1 % of reading ±0.005 m/s
Gaseous media:	±1...3 % of reading ±0.005 m/s
Ex zone transmitter:	
FLUXUS® F801/G801	ATEX/IECEx Zone 1
FLUXUS® F808	ATEX/IECEx Zone 1, FM Class I - Div1/Div2
FLUXUS® F809/ G809	ATEX/IECEx Zone 1, FM Class I - Div1
Power supply	
Liquid/Gaseous media:	100-230VAC, 24DC
transducer for Ex zones:	
FLUXUS® F801/G801	ATEX/IECEx Zone 1
FLUXUS® F808	ATEX/IECEx Zone 1, FM Class I - Div1/Div2
FLUXUS® F809/ G809	ATEX/IECEx Zone 1, FM Class I - Div1
transducer for pipe sizes range:	
FLUXUS® F801	10 mm ... 6500 mm
FLUXUS® G801	7 mm ... 1600 mm
FLUXUS® F808	6 mm ... 6500 mm
FLUXUS® F809	10 mm ... 6500 mm
FLUXUS® G809:	7 mm ... 1600 mm
transducer for temperature range:	
Liquid/Gaseous media:	-40°C ... +240°C / WI: -200°C ... +600°C
Outputs:	
FLUXUS® F801/G801	4-20mA active/passive, 4-20mA HART active/passive 4-20mA passive intrinsic safety, pulse/frequency/binary
FLUXUS® F808	4-20mA active/passive, 4-20mA HART active/passive
FLUXUS® F809/G809	4-20mA active/passive, 4-20mA HART active/passive 4-20mA passive intrinsic safety, pulse/frequency/binary
Inputs:	---
Digital communication:	
Liquid/Gaseous media:	Modbus RTU
For more detailed Information please download the Technical Specifications	

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