



Baker Hughes 

 **Panametrics**  
a Baker Hughes business

# Flow



Sentinel LNG Liquid Flow Meter



Sentinel LCT4



Sentinel LCT8



Panaflow Z1G/Z2G



Panaflow Z3



Transport PT878GC



Panaflow LZ



Panaflow HT



Transport PT900



Aquatrans AT600

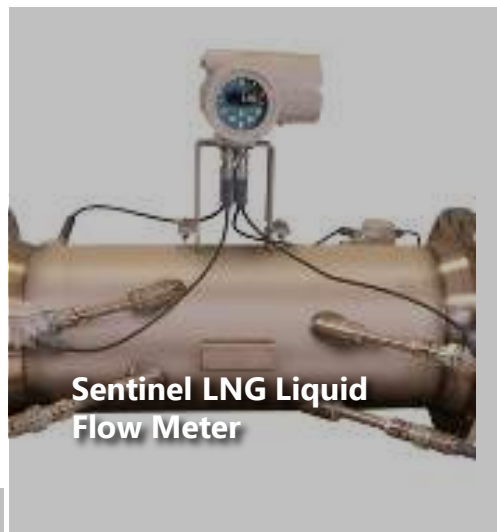
## Ultrasonic Flow Meters

Panametrics

# Flow Sentinel

4 path meter for liquid custody transfer or leak detection

- Process measurement refers to measurement for control.
- Optimization of a process, and it is not as accurate as a custody transfer measurement.
- Custody transfer refers to the measurement of fluid passing from a supplier to a customer



8 path meter for liquid custody transfer or leak detection



## Ultrasonic Flow Meters

Panametrics

# Flow Pana flow

- The first of the two technologies is ultrasonic.
- An ultrasonic flow meter uses the transmission of sound to determine a velocity, and from that velocity all other measurements are calculated
- One or two-path liquid wetted system



- Large temp range
- SIL-rated for hazardous areas
- Ideal for residue applications

3 path liquid flow measurement



## Ultrasonic Flow Meters

Panametrics

# Flow Clamp On

- Easy to use, portable liquid flowmeter
- Display data and program from a tablet or smart phone
- The TransPort PT900 uses a rugged and intuitive smart device/tablet Includes a new compact clamp-on fixture along with wireless capabilities.
- Its easy-to-use design gives operators confidence that their liquid measurements are accurate.



- Portable ultrasonic gas flowmeter
- Rugged industrial design
- One path liquid meter
- Works with wide range of pipe materials
- Easy installation

- The TransPort PT878GC is a clamp-on flow meter designed for short-term flow surveys in natural gas pipelines, compressed air, inert gas, or any other compressed gas application.



## Ultrasonic Flow Meters

Panametrics

# Flow solution

- Flow measurement surveys
- Training available

## Flow Services

- Regulatory meter evaluations and verifications
- Preventative maintenance



**Digitalflow GS868**



**Digitalflow GF868**

The industry's first and leading monitoring solution.

- Measures velocity, volumetric and mass flow.
- Independent of gas composition
- Easy serviceability



### Key Benefits of Panametrics Flare Gas Mass Ultrasonic Flowmeter

- Measures velocity, volumetric and mass flow
- Standard velocity range to 100 m/s (328 ft/s) standard
- Extended velocity range to 120 m/s (394 ft/s)
- Measures instantaneous average molecular weight
- Measures Net Heating Value (NHV) of vent gas in BTU/SCF, M3/md, or KB/md
- Measures hydrocarbon gases
- Self-calibration check assures accurate worry-free operation
- Delivers accurate flow rate, independent of gas composition
- Measures very low to very high velocity, 4000 to 1 turndown ratio
- Field-proven installation techniques
- Built-in totalizers
- Built-in power supply for pressure and temperature transmitters
- One or two channel/path configurations

Ultrasonic technology is preferred for measuring flare gas due to its non-intrusive nature, wide range of applications, accuracy, low maintenance requirements, high turndown ratio, environmental compliance, real-time data, no pressure drop, remote monitoring, and longevity. Ultrasonic flow meters are robust enough to withstand changes in gas composition and are less prone to becoming clogged or unclean, lowering maintenance expenses. Panametrics, a Baker Hughes business, provides ultrasonic flare flow meters for refineries, petrochemical plants, and offshore platforms.

Key benefits of the Panametrics Flare Gas Mass Ultrasonic Flowmeter include measuring velocity, volumetric, and mass flow; a standard velocity range of 100 m/s; an extended velocity range of 120 m/s; instantaneous average molecular weight; a net heating value (NHV) of vent gas and hydrocarbon gases; a self-calibration check; an accurate flow rate; field-proven installation techniques; built-in totalizers; a built-in power supply for pressure and temperature transmitters; and a 4000 to 1 turndown ratio.

The Digital Flow GF868 flowmeter is a complete ultrasonic flow metering system for various applications, including flare gas, vent gas, hydrocarbon gases, biogases, and digester gases. Panametrics technology minimizes flare emissions and enhances overall performance, making it a global leader in measuring solutions and flare emissions management.

## Why Ultrasonic Is Preferred Technology for Flare

1. Non-Intrusive: Non-intrusive ultrasonic flow meters safely measure hazardous, caustic, or high-temperature flare materials.
2. Wide Range of Applications: Ultrasonic technology adapts to varying gases and liquids, ideal for flare systems with fluctuating compositions.
3. Accuracy: Ultrasonic flow meters provide high precision and reliability, ensuring accurate flow measurement for flare systems to meet safety and environmental regulations..
4. Low Maintenance: Ultrasonic flow meters have no moving parts, reducing maintenance needs and making them ideal for remote flare installations.
5. Ultrasonic flow meters are essential for flare systems with fluctuating flow rates, providing accurate measurements across a wide turndown ratio
6. Ultrasonic flow meters ensure safety and environmental compliance in flare operations by enabling precise gas measurement and reducing emissions.
7. Real-Time Data: Real-time data from ultrasonic flow meters enables prompt changes and responsiveness to shifting flare system conditions.
8. No Pressure Drop: Ultrasonic flow meters prevent pressure drops, ensuring stable pressure in critical applications.

Ultrasonic technology is ideal for flare system flow monitoring due to its non-intrusiveness, adaptability, precision, and low maintenance needs.

## Applications

The Digital Flow GF868 flowmeter is a complete ultrasonic flow metering system for:

- Flare gas
- Track down or prevent losses from leakage with positive material identification
- Account for total plant throughput of material
- Reduce cost of steam and fuel usage with proportional control
- Conserve energy by eliminating unnecessary flaring
- Comply with government regulations for pollution control
- Vent gas
- Hydrocarbon gases
- Biogases
- Digester gases



# THANK YOU

## Eximp Measurement Private Limited Our Contact

Contact us today to find your perfect solution.



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