DigitalFlow™ XGS868
Panametrics Steam Flow Ultrasonic Transmitter

DigitalFlow XGS868 is a Panametrics product. Panametrics has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.
GE Sensing

Compact Housing
All of the DigitalFlow XGS868’s electronic components are housed in a compact transmitter package that can be installed right at the flow measurement point. This greatly simplifies wiring of the transducers and results in trouble-free operation.

Low Operational Costs
Because a DigitalFlow XGS868 installation produces no flow obstruction, the energy-robbing pressure drops and high maintenance requirements characteristic of other flowmeters are eliminated. The special sealed metal transducers supplied with a DigitalFlow XGS868 system are immune to the erosion and stress caused by thermal expansion cycles.

Steam Mass Flow Rate
The measured flow velocity rate, along with the input of temperature and pressure, allow the powerful onboard computer to calculate the steam mass flow rate. The mass flow rate can be displayed locally, or transmitted to a remote system via an analog or digital communications link.

Additional Options
PanaView PC Interface Software
The DigitalFlow XGS868 communicates with a PC through a serial interface and Windows® operating systems. Consult the manual for details on sites, logs and other operations with a PC.

Dual-Channel Model
In addition to the standard single-channel model, an optional two-channel model provides enhanced accuracy when measuring two paths on a single pipe. It can also be used to measure a single path on two different pipes.
**XGS868 Specifications**

**Operation and Performance**

**Fluid Types**
Saturated or superheated steam

**Pipe Sizes**
2 in to 48 in (50 mm to 1200 mm) nominal bore (NB)

**Pipe Materials**
All metals. Consult GE for other materials.

**Flow Accuracy (Velocity)**
±1% to 2% of reading typical

Accuracy depends on pipe size and whether measurement is one-path or two-path. Accuracy to ±0.5% of reading may be achievable with process calibration.

**Repeatability**
±0.2% to 0.5% of reading

**Range (Bidirectional)**
-150 ft/s to 150 ft/s (−46 m/s to 46 m/s)

**Rangeability (Overall)**
150:1

Specifications assume a fully developed flow profile (typically 20 diameters upstream and 10 diameters downstream of straight pipe run) and flow velocity greater than 3 ft/s (1 m/s).

**Measurement Parameters**
Mass flow, standard and actual flow, totalized flow, and flow velocity

**Electronics**

**Flow Measurement**
Transit time

**Enclosures**
- Standard: Epoxy-coated aluminum Type 4X IP66 Class I, Division 1, Groups B,C,D FM J.I1B1A9.AE, CSA LR44204-26 Flameproof ISSeP02ATEX008 II 2 GD EEx d IIC T5 IP66 T95°C
- Optional: Stainless steel

**Dimensions (h x d)**
Standard: Size 8.2 in x 6.6 in (208 mm x 168 mm), weight 10 lb (4.5 kg)

**Channels**
- Standard: One channel
- Optional: Two channels (for two pipes or two-path averaging)

**Display**
Optional: 2 line x 16 character backlit LCD display, configurable to display up to four measurement parameters in sequence

**Keypad**
Built-in infrared, six-button keypad for full functionality operation

**Power Supplies**
- Standard: 100 to 130 VAC, 50/60 Hz or 200 to 265 VAC, 50/60 Hz
- Optional: 12 to 28 VDC, ±5%

**Power Consumption**
20 W maximum

**Operating Temperature**
−40°F to 140°F (−40°C to 60°C)

**Storage Temperature**
−67°F to 167°F (−55°C to 75°C)

**Standard Inputs/Outputs**
Two 0/4 to 20 mA isolated outputs, 600 Ω maximum load

**Optional Inputs/Outputs**
- All analog and digital I/O are available in specific combinations. Consult GE for available option cards.
- Two additional 0/4 to 20 mA isolated outputs, 1,000 Ω maximum load
- Two 4 to 20 mA isolated inputs, 24 VDC loop power
XGS868 Specifications

- Two or four isolated, three-wire RTD (temperature) inputs, –148°F to 662°F (–100°C to 350°C), 100Ω platinum
- Two or four pulse or frequency outputs, optically isolated, 3 A maximum, 100 VDC maximum, 1 W maximum, from DC to 10 KHz maximum
- Alarm relays:
  - Two or four Form C relays; 120 VAC, 28 VDC maximum, 5 A maximum; DC 30 W maximum, AC 60 VA maximum

Digital Interfaces
- Standard: RS232
- Optional: RS485 (multiuser)
- Optional: HART® protocol
- Optional: Modbus® protocol

Data Logging
- Standard: None
- Optional: Memory capacity (linear and/or circular type) to log over 150,000 flow data points

European Compliance
System complies with EMC Directive 89/336/EEC, 73/23/EEC LVD (Installation Category II, Pollution Degree 2) and transducers comply with PED 97/23/EC for DN<25

Preamplifier
- In-line preamplifier for long cable lengths or attenuating installations
- Operating temperature: -40°F to 140°F (-40°C to 60°C)

Wetted Ultrasonic Flow Transducers

Temperature Range
- Standard: –58°F to 302°F (–50°C to 150°C)
- Optional (overall): –310°F to 842°F (–190°C to 450°C)

Pressure Range
- Standard: 0 psig to 2700 psig (1 bar to 187 bar)
- Optional: 3480 psig (240 bar) maximum

Materials
- Standard: Titanium
- Optional: Monel® or Hastelloy® alloys

Process Connections
Flanged and compression fittings

Mountings
Flowcell or cold tap

Area Classifications
- Standard: General purpose
- Optional: Weatherproof Type 4 IP65
- Optional: Explosion-proof Class I, Division 1, Groups C,D
- Optional: Flameproof II 2 G EEx d IIC T6

Transducers and flowcells for specific applications are available. Consult GE for details.

Transducer Cables
- Standard: One pair of coaxial cables, type RG62 AU, or as specified for transducer type
- Optional: Lengths up to 1000 ft (330 m) maximum

High Temperature and High Pressure Ultrasonic Flow Transducers
Bundle Waveguide Technology™ (BWT) System transducer and holder (see BWT System specifications) are available.