



ThermaFlow™ 700

High Temperature Flowmeter

Unprecedented capabilities in the world's harshest environments

WORK HOTTER AND SMARTER

The ThermaFlow™ 700 thermal mass flowmeter and dedicated smart electronics provide compensated readings of flow rate and fluid temperature for seamless integration in the most corrosive environments.



High Temp / Pressure

Excellent performance at temperatures of up to 700°C and pressure up to 2000 psi



Corrosive Environments

Engineered for direct immersion in molten salts and other corrosive gases and liquids



All-in-One

One sensor, one system, one penetration, in-situ operation

Key Features

- Not dependent on system geometry
- High sensitivity at low flow rates
- In-situ calibration services for use in unusual conditions
- Measures flow rate + fluid temperature
- Supports multiple installation methods
- Onboard temperature compensation
- Remote electronics with digital readout (100' from process)
- Analog and digital outputs

continued...





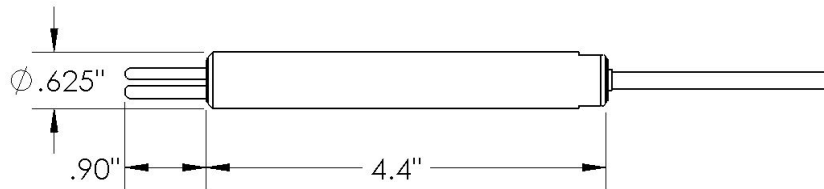
ThermaFlow™ 700

High Temperature Flowmeter

WORK HOTTER AND SMARTER

Technical Specifications

Part # 940-000-0314



Performance

Operating Temperature	700°C max
Operating Pressure.....	2000 psi max (<320°C)
Flow Measurement Range*	Up to 1.00 m/s (water) Up to 2.0 m/s (NO3 salts) Up to 1.6 m/s (Cl salts) Up to 0.50 m/s (FLiNaK) Up to 0.80 m/s (FLiBe)
Flow Measurement Accuracy*	± 2% FS
Temperature Measurement Accuracy	IEC751 Class B
Flow Measurement Resolution*	0.03 ft/s 0.01 m/s
Temperature Measurement Resolution	0.1°C

* Flow characteristics may vary with calibrated range and fluid composition

Physical

Probe Mass	0.44 lb 200 grams**
Probe Diameter.....	0.625 in 15.9 mm Probe
Length	5.3 in 134.6 mm
Transmitter Temperature Range	-40°C to +85°C
Media.....	Liquids or gases (not designed for multi-phase flow)
Wetted Materials.....	316SS standard Other materials available (e.g., Hastelloy, Inconel)

** Nominal, actual values dependent upon customer-specified package configuration.

Electrical

Output Signal Type	Digital + Analog
Communications.....	Ethernet, 0-5 VDC, 4-20 mA (using optional converter)
Power	72 W at 110-240 VAC 50/60 Hz
Max Sampling Rate	10 Hz

Applications

- Water-Cooled Reactors
- Molten Salt Materials Processing
- Thermal Energy Storage
- Heat Transfer Fluids
- Chemical Processing & Manufacturing
- Energy Generation Systems
- Oil & Gas
- R&D



Sporian Microsystems, Inc.

Phone: 303-516-9075

Email: info@sporian.com

Website: sporian.com

515 Courtney Way, Suite B
Lafayette, CO 80026

thermaflow.tech