



# Product Sheet

## ThermaFlow 700™

### Flowmeter

PN: 940-000-0314



### Description

Sporian's ThermaFlow 700™ flowmeter is an all-in-one complete system that provides flow and temperature measurements in the highest temperatures and the most corrosive environments.

### Main Features

High operating temperature	Up to 700°C
High operating pressure	Up to 2000 psi
Corrosion resistance	Compatible with superheated water, molten salts, and other corrosive gases and liquids 316SS packaging standard, other materials available (e.g., Hastelloy, Inconel)
Simplicity	Single penetration Transmitter can be located 100' or more from process Onboard temperature compensation Digital output in engineering units Analog voltage and current outputs available

### Attributes

- Operates in extreme environments
- No need for stand-off pneumatic tubes
- Flow rate and temperature outputs in engineering units
- Modifiable packaging to meet most mounting specifications
- Digital interface – Easy to install/setup

### Typical Applications

- Molten Salt Materials Processing
- Thermal Energy Storage
- Chemical Processing & Manufacturing
- Energy Generation Systems
- Oil & Gas
- R&D



## Technical Specifications

### Performance

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 depending on calibrated range, as well as fluid composition and thermophysical properties. Range, accuracy, and resolution in some fluids is estimated.

### 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)
Packaging Material	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 (UDP, 320 kbps max) 0-5 VDC
Power	72 W max 24-36 VDC, 2 A
Max Sampling Rate	10 Hz
Available Optional Interfaces	USB, RS-485, 4-20 mA

## Contact Us

Sporian Microsystems is ready to help you with off-the-shelf or custom solutions to meet your sensing needs.

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