Data Sheet

CalFlo™ CFTM

Thermal Mass Flow and Temperature Meter

For more information, please visit >
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Overview

CalFlo™ CFTM

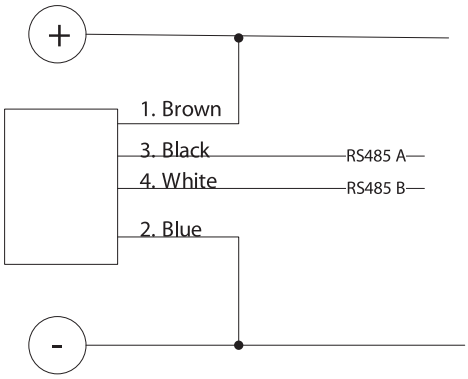
Thermal Mass Flow and Temperature Meter

Principle of Operation

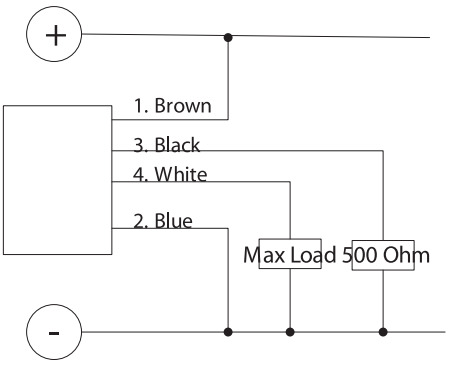
The CalFlo™ CFTM Thermal Mass Flow and Temperature Meter represents the logical evolution matching modern microprocessor intelligence with over 30 years of thermal flow expertise. With its patent pending auto-self-calibration, the CalFlo™ CFTM is the first truly “set-it and forget-it” flow and temperature solution. No need for expensive on-going calibration as CFTM is designed to maintain accuracy for many years. With standard features such as highly accurate temperature sensing with auto-self-calibration, it becomes the most exciting flow sensor in decades. The Modbus version presents the user with analog flow and temperature, has a totalizing counter, and provides independent high and low adjustable flow and temperature switches. The analog version provides two independent linear 4-20mA outputs for both flow and temperature. A single potentiometer sets the flow range for analog versions.

Connection Diagram

CFTM-2 (RS-485 Modbus RTU)



CFTM-1 (4-20mA Flow & Temp.)



Features and Benefits

- Standard patent pending auto-calibration (no temperature drift)
- Separate adjustments for temperature and flow (Modbus version)
- Counter totalizer (Modbus version)
- Choice between Modbus RTU Output or 4-20mA
- Encapsulated for vibration resistance
- Withstands up to 1400 psi static pressure
- No moving parts

Specifications

Service	Oil or water-based solutions
Measuring Velocity Range	0.25 -10ft/sec (7.62-350 cm/s), auto-ranging
Set-point Range	5% to 90% of maximum flow
Process Temperature	-4ºF to 175ºF (-20ºC to 90ºC)
Pressure	Up to 1,400 PSI (100 bar)
Response Time	Max 5 seconds normal flow
Linearity Deviation	< 5%
Repeatability	< 2%
Protection Class	IP65
Housing Material	PBTP, glassfibre reinforced (Ultradur®)
Sensor Probe	Standard: Stainless Steel (WN1.4305 V2A, 303 Ti) Optional: stainless steel (WN 1.4571 V4A , 316 Ti), Titanium, Hastelloy C4 and Hastelloy C22
Thread	1/2” NPT
Connection	M12-plug, 5-Pin
Operating Voltage	19 to 30VDC, incl. residual ripple
Ambient Temperature	-4ºF to 158ºF (-20ºC to 70ºC)
Initial Operation	Approx. 10s after connection of power

Ordering Information

HAWK Model Number Builder

Use the diagram below, working from left to right to construct your HAWK Model Number.
Simply match the category number to the corresponding box number.

Example: ***CFTM-1-SS***

CalFlo CFTM™ Thermal Mass Flow and Temperature Meter with 4-20mA Interface and standard 303 Stainless Steel Probe

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CFTM

Interface (1)

1) 4-20mA Flow & Temp.

2) RS-485 Modbus RTU

Sensor Probe Material

SS) 303 Stainless Steel (standard)

S1) 316 Stainless Steel

T1) Titanium

H2) Hastelloy C22® on request

H4) Hastelloy C4® on request

Ordering Notes:

(1) Select the best configuration based on your requirements.

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