

T H E R M O M E T R I C S
A C O M M I T M E N T T O E X C E L L E N C E

Inline Flow-Through Fluid Temperature Sensor



Thermometrics Inline Flow-Through Temperature Sensor monitors the temperature of a fluid that passes through it. A system control module receives this temperature reading and uses a control loop to control the overall system temperature. This could be engine temperature, heater temperature, industrial supply temperature, etc.

Applications

- Engine Coolant Temperature
- Battery Pack Coolant Line Temperature
- Process Flow Management
- HVAC Water Management
- Home Appliances

Features

- High sensitivity
- Wide application range
- Compact design
- SAE J-1231 interface
- USCAR sealed connection system
- Available in four standard hose sizes



Amphenol
Advanced Sensors

Inline Flow-Through Fluid Temperature Sensor Specifications

Operating Temperature

-40°C to 120°C (-40°F to 248°F)

Storage Temperature

-40°C to 120°C (-40°F to 248°F)

R @ 77°F (25°C)

10 KΩ ± 1.5%

Beta (25/85)°C

GE-2102: 3977K

GE-1935: 3977K

GE-2103: 3977K

CTTS-302651-F01: 3435K

Housing Material

Polyamide 6/6

Color: Black

Mating Connector

Molex 31403-2100 without CPA Lock

Molex 31403-2110 with CPA Lock

Thermistor Material System

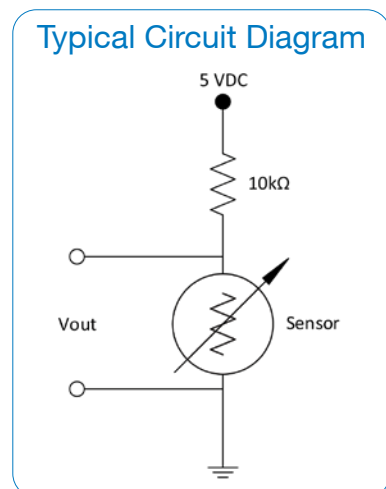
Material 1

Mechanical

| Part Number | Hose Size | SAE J1231 Hose Dash Size | Weight |
|-----------------|--------------------|--------------------------|--------|
| GE-2102 | 0.50 in (12.70 mm) | -8 | ~8g |
| GE-1935 | 0.75 in (19.05 mm) | -12 | ~14g |
| GE-2103 | 1.25 in (31.75 mm) | -20 | ~26g |
| CTTS-302651-F01 | 0.55 in (14.00 mm) | -14 | ~10.1g |

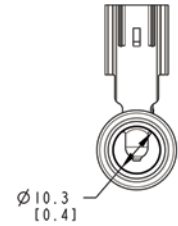
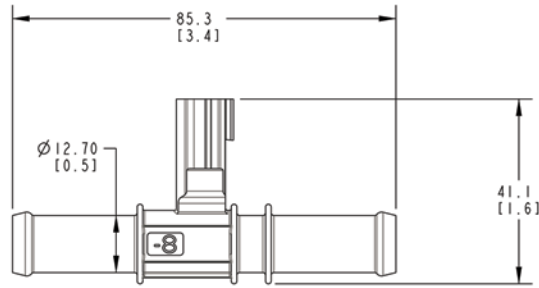
| GE Series RvT Table | | | |
|---------------------|----------------|----------------------------|-----------------------|
| Temp. (°C) | Resistance (Ω) | Resistance Tolerance (± %) | Temp. Tolerance (±°C) |
| -40 | 332776 | 5.95 | 0.5 |
| -20 | 96481 | 4.24 | 0.5 |
| 0 | 32566 | 2.71 | 0.4 |
| 20 | 12486 | 1.72 | 0.4 |
| 25 | 10000 | 1.50 | 0.3 |
| 40 | 5331 | 2.11 | 0.5 |
| 60 | 2490 | 2.84 | 0.6 |
| 85 | 1071 | 3.58 | 0.8 |
| 100 | 678.1 | 5.56 | 1.0 |
| 120 | 338.2 | 7.00 | 1.2 |

| CTTS RvT Table | | | |
|----------------|----------------|----------------------------|-----------------------|
| Temp. (°C) | Resistance (Ω) | Resistance Tolerance (± %) | Temp. Tolerance (±°C) |
| -40 | 209587 | 4.6 | 0.8 |
| -20 | 71203 | 3.5 | 0.7 |
| 0 | 27758 | 2.5 | 0.6 |
| 20 | 12116 | 1.7 | 0.4 |
| 25 | 10000 | 1.5 | 0.4 |
| 40 | 5807 | 2.1 | 0.6 |
| 60 | 3009 | 2.7 | 0.9 |
| 85 | 1450 | 3.5 | 1.3 |
| 100 | 968.4 | 3.9 | 1.5 |
| 120 | 579.8 | 4.4 | 1.8 |

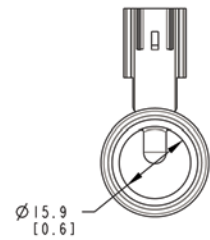
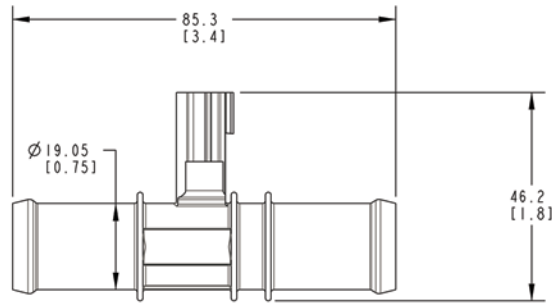


Inline Flow-Through Fluid Temperature Sensor Dimensions (mm/in)

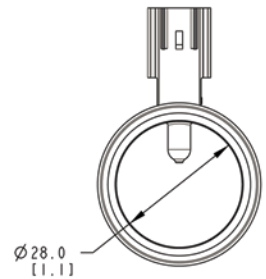
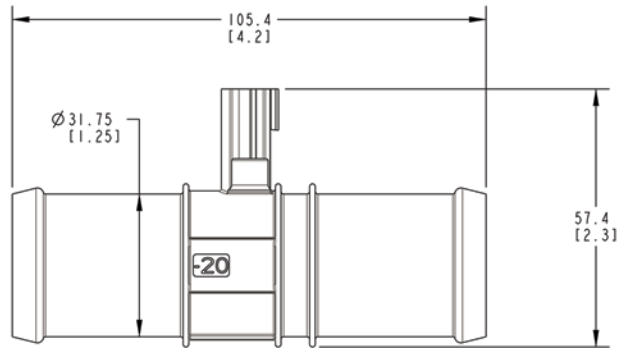
GE-2102
-8, 1/2" Hose



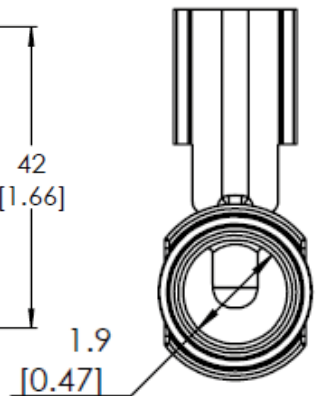
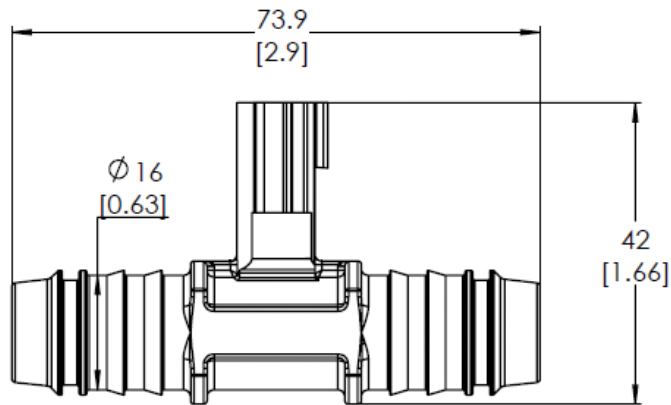
GE-1935
-12, 3/4" Hose



GE-2103
-20, 1-1/4" Hose



CTTS-30265-F01
-14, .55" Hose



Dimensions shown are for envelope size. Contact Product Engineering for detailed drawings.

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