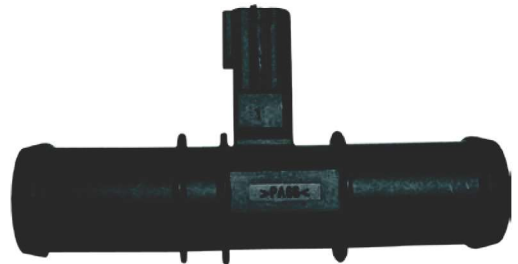




T H E R M O M E T R I C S  
A C O M M I T M E N T T O E X C E L L E N C E

# Inline Flow-Through Fluid Temperature Sensor



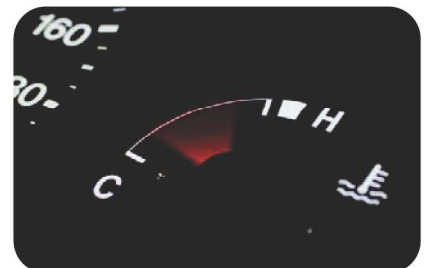
Thermometrics Inline Flow-Through Temperature Sensor monitors the temperature of a fluid that passes through it. A system control module receives this temperature reading and uses a control loop to control the overall system temperature. This could be engine temperature, heater temperature, industrial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



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# 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

| Part Number     | 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

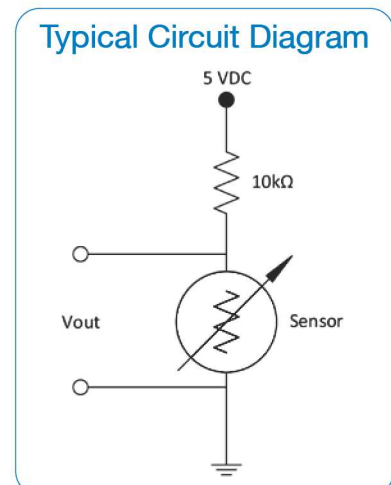
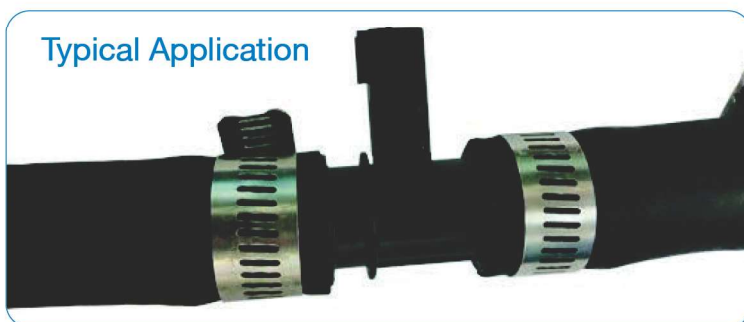
Material 1

## 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 |

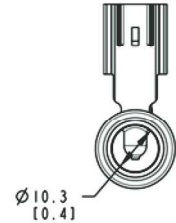
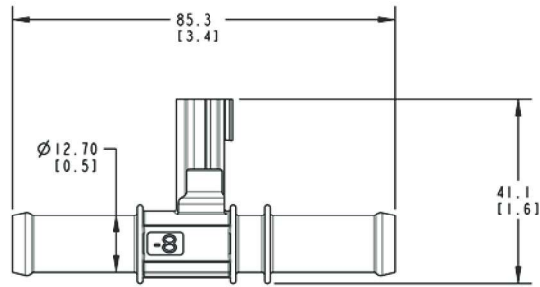
| GE Series RvT Table |                |                            |                       |
|---------------------|----------------|----------------------------|-----------------------|
| Temp. (°C)          | Resistance (Ω) | Resistance Tolerance (± %) | Temp. Tolerance (±°C) |
| -40                 | 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                   |

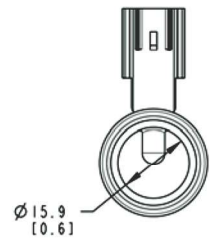
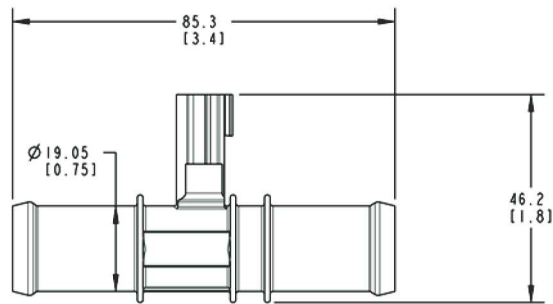


# Inline Flow-Through Fluid Temperature Sensor Dimensions (mm/in)

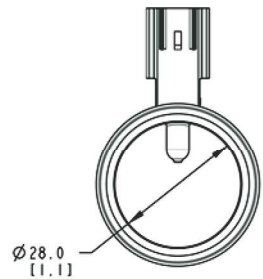
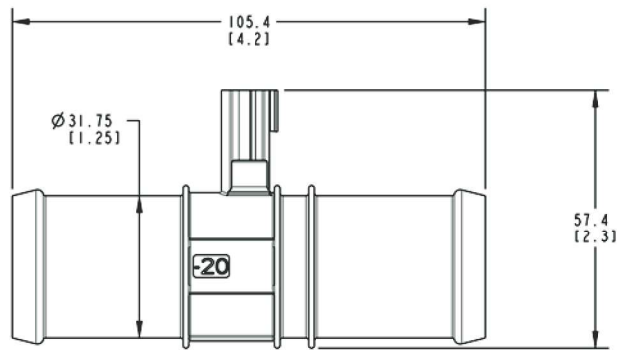
GE-2102  
-8, 1/2" Hose



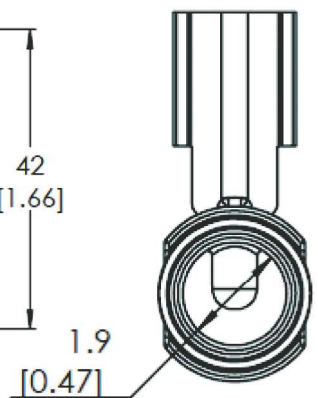
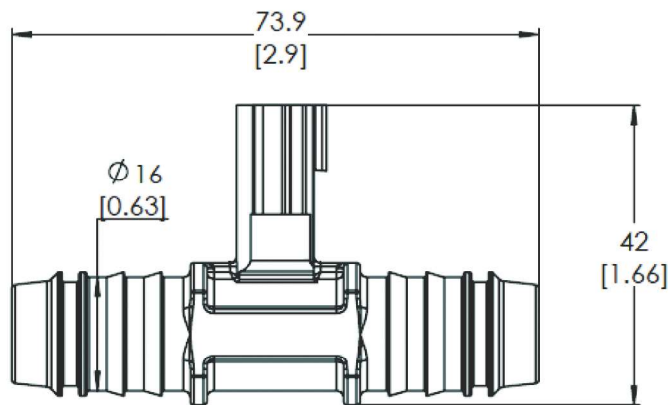
GE-1935  
-12, 3/4" Hose



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



CTTS-302651-F01  
-14, .55" Hose



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

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