

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



The 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 3 standard hose sizes



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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

3977 K

## Housing Material

Polyamide 6/6

Color: black

## Weight

GE-2102 ~8g

GE-1935 ~14g

GE-2103 ~26g

## Mating Connector

Molex 31403-2100 without CPA Lock

Molex 31403-2110 with CPA Lock

## Mechanical

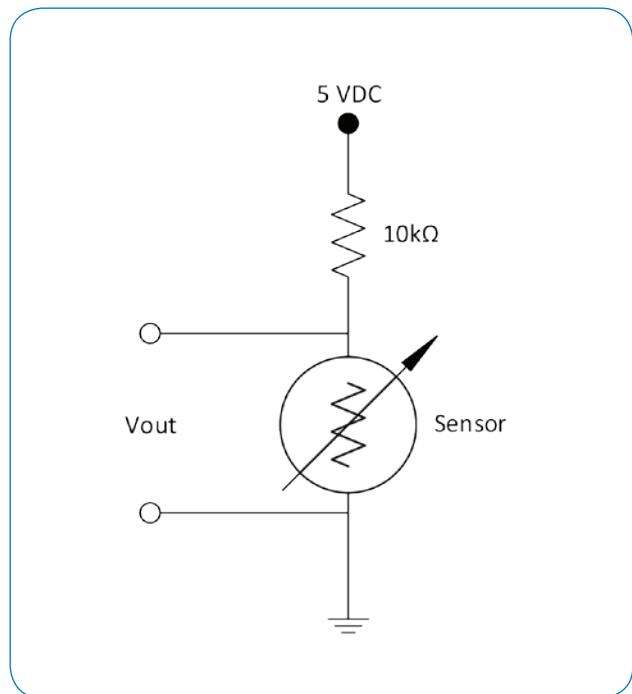
Part No.	Hose Size (in)	SAE J1231 Hose Dash Size
GE-2102	1/2"	-8
GE-1935	3/4"	-12
GE-2103	1 1/4"	-20

## Thermistor Material System

Material 1

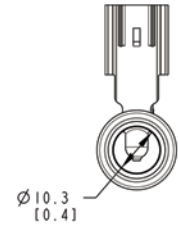
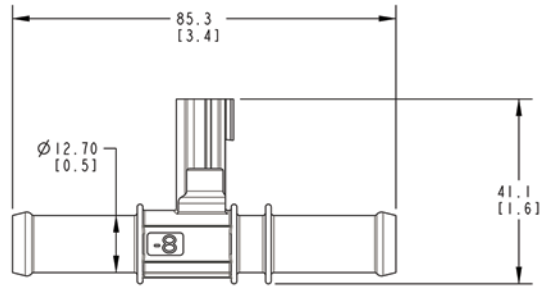
RvT Table			
Temp. (°C)	Resistance (Ω)	Resistance Tolerance (+ %)	Temp. Tolerance (+°C)
-40	332776	5.95	0.5
-20	96481	4.24	0.5
0	32566	2.71	0.4
20	12486	1.72	0.4
25	10000	1.50	0.3
40	5331	2.11	0.5
60	2490	2.84	0.6
85	1071	3.58	0.8
100	678.1	5.56	1.0
120	338.2	7.00	1.2

## Typical Circuit Diagram

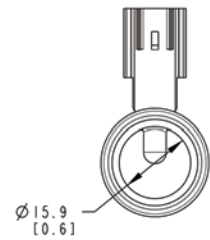
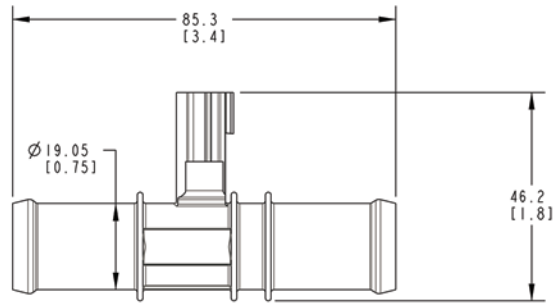


# Inline Flow-Through Fluid Temperature Sensor Dimensions

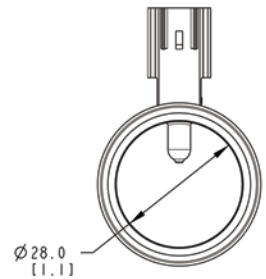
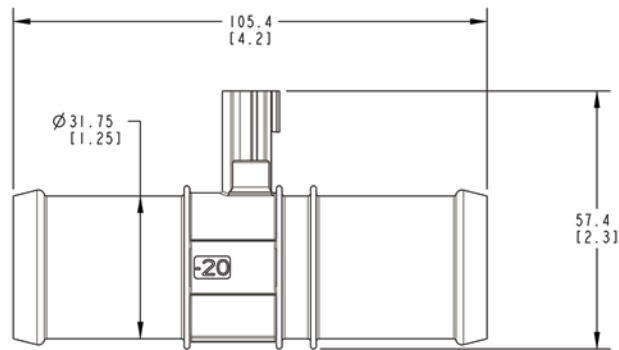
GE-2102  
-8, 1/2" HOSE



GE-1935  
-12, 3/4" HOSE



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



Dimensions are in MM (IN)

Dimensions shown are for envelope size, contact Product Engineering for detailed drawings.

## Typical Application



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