| 5024 SERIES

Custom Temperature Sensor Packages

Introduction

The 5024 series are custom temperature sensors designed to meet your applications needs.

Immersion probes generally used to sense and monitor temperature changes in applications requiring the sensor to be immersed in a media (air, water, oil, fuel, transmission fluid, hydraulic fluid, and the like) while maintaining the integrity of the sensor with regards to the elements. These sensor assemblies have the ability to monitor temperature changes, feed information to a microprocessor, and allow the microprocessor to make decisions based on predetermined readings. The devices can also be used to drive a gauge or certain sensors with extreme changes in output with temperature can be used to pull in and drop out relays. Various package styles and termination are available.

Surface sensing assemblies are generally used in controlled environments where severe conditions will not come into play. The surface sensing device can signal a microprocessor and allow the microprocessor to turn on or turn off different peripheral hardware at different predetermined milestone points. Various package styles allow the surface sensing device to be used in power supplies, switching stations, generator sets, personal computers, and a wide variety of other applications. The device will sense the temperature of the surface it is mounted to and provides an active feedback to its host.

Transmissions, brakes, hydraulic lines, manifold and heat exchangers require fluid and air temperature to be monitored at all times. Sensata has worked in these environments for many years and can provide package styles that are very responsive to these environments. These devices in turn would constantly monitor and feedback information reflecting changes in temperature to a gage, microprocessor, relay, or other device, allowing the end user to operate the equipment under optimum conditions and be alerted when these conditions deteriorate.
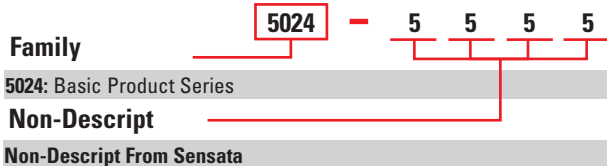
Features

- Available sensing technologies include thermistor, RTD or IC
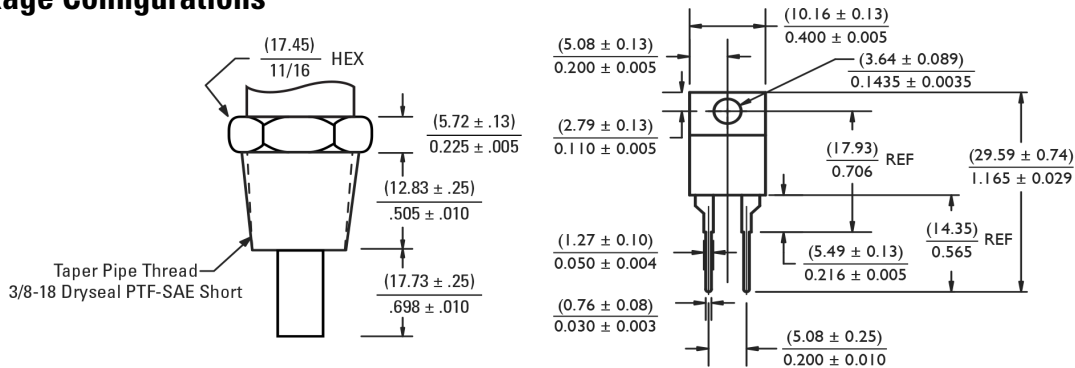- Stainless steel, brass or plastic construction

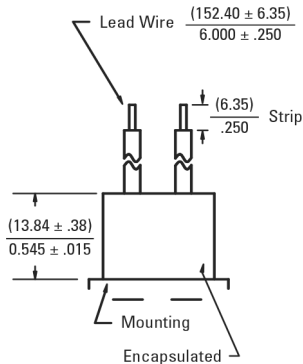## ORDERING OPTIONS

Example : 5024-5555

5024 series assigned a unique, 4-digit non-descript by Sensata Technologies to specify the body, terminals and sensing element.

Family	5024	–	5	5	5	5
5024: Basic Product Series						
Non-Descript						
Non-Descript From Sensata						

Typical Package Configurations

Typical Terminals

Operation Characteristics

The 5024 series temperature sensors are available in a variety of physical packages with several types of solid-state elements. These devices exhibit a predictable change in electrical output as a function of temperature.

Custom Capabilities

Sensata allows you to design the product to meet the requirements of each and every application. Something out of the ordinary is not out of the ordinary for us. We make the unique, daily.

Quality

ISO 9001 registered, Sensata Technologies is a certified supplier to many of the market leaders.

1. The standard lead wire (materials) for different temperature ranges are as follows:
    A. Up to 220°F (104.4°C) = # 18 AWG standed. UL Style 1015/CSA approved. (PVC insulation, color black)
    B. 221°F to 350°F (105°C to 176.6°C) = #18 AWG stranded. UL Style 1199/CSA approved. (Teflon® TFE insulation, color black)
    C. 351°F (177.2°C) and above = #18 AWG stranded. UL style 5288/CSA approved. (Composite of Teflon®, ceramic + glass braid, color brown)

AGENCY APPROVALS & CERTIFICATIONS

WARNINGS

DANGER

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE
• The product's side panels may be hot, allow the product to cool before touching
• Follow proper mounting instructions including torque values
• Do not allow liquids or foreign objects to enter this product
Failure to follow these instructions can result in serious injury, or equipment damage.

Danger Electric shock risk

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH
•   Disconnect all power before installing or working with this equipment
•   Verify all connections and replace all covers before turning on power
Failure to follow these instructions will result in death or serious injury.

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Rev:03/09/18

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