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### 597-53DD01-104



500 Series surface temperature probe

Actual product appearance may vary.

#### Features

Wide selection of housing options  
Choice of custom or existing designs  
Operating temperature range design available from -60 °C to 300 °C [-76 °F to 572 °F]

#### Potential Applications

Automotive  
White goods  
Communications  
Medical  
Fire detection  
Computers  
Instrumentation test equipment  
Microwave oven probes  
Bulk freight refrigeration  
Digital thermometers  
Drinking and vending machines  
Military  
Aerospace

#### Description

The 500 Series Probes represents a full range of thermistor and RTD based temperature sensors. These assemblies have been designed for use in specific applications. Housings may accommodate air/gas, immersion or surface sensing requirements. Housing material ranges from all plastic to all metal. In addition to custom configurations, the customer may also choose from a variety of existing designs.

#### Supporting Documentation

- [Engineering Drawing](#)

| Product Specifications                |                                      |
|---------------------------------------|--------------------------------------|
| Thermistor Type                       | NTC                                  |
| Temperature Sensing Type              | Surface                              |
| Nominal Resistance at 25 °C [77 °F]   | 100,000 Ohm                          |
| Tolerance                             | ± 3.0%                               |
| Accuracy                              | 116 °C [240 °F]                      |
| R - T Curve                           | 1                                    |
| Operating Temperature Range           | -60 °C to 125 °C [ -76 °F to 257 °F] |
| Housing Material                      | Aluminum                             |
| Mechanical Interface                  | 5/15 -24 UNF thread                  |
| Electrical Interface                  | Lead wires with terminals            |
| Lead Material                         | 20 Gauge Teflon insulation           |
| Lead Length                           | 610 mm [24 in]                       |
| Connector Type                        | AMP 42531 -2 receptacles             |
| Time Constant on Metal Surface        | 5.0 s                                |
| Dissipation Constant on Metal Surface | 10 mW/°C                             |
| Availability                          | Global                               |
| Series Name                           | 500                                  |

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All Sensing and Control

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