



## FAST RESPONSE SERIES (M24236/11)



### Introduction

Klixon® 3BT Tiny Stat™ fast response temperature probes are designed to provide reliable, consistent performance over a long cycle life in the harshest environments. These probes provide rapid response times combined with outstanding shock and vibration resistance. They have a wide operating temperature range of 0°F to +350°F. These characteristics enable protection or indication of high or low temperatures in aircraft environmental control systems, helicopter gear boxes, compressor discharge gas streams, and coolant systems.

### Features

- Hermetically Sealed (probe only)
- Snap-action switching
- Pre-set, non-adjustable calibration
- High resistance to shock and vibration
- Qualified to MIL-PRF-24236/11



## PERFORMANCE

### Contact Ratings (Resistive)

Based on standard differential

30 VAC/DC	115 VAC	Life Cycles	Contacts
1.0 Amperes	1.0 Amperes	10,000	Silver
0.5 Amperes	0.5 Amperes	10,000	Gold
Vibration 10 to 2,000 Hz, 30 G.			
<i>Notes:</i>			
1.) Devices which open on temperature rise should not be subjected to vibration while at temperatures of 75°F or more below the opening temperature.			
2.) Devices which close on temperature rise should not be subjected to vibration while at temperatures of 75°F or more above the closing temperature.			

### Characteristics

<b>Contact Resistance</b>	0.100 ohms max., (0.150 ohms max. for close on rise devices with setpoints greater than 175°F) per MIL-STD-202, Method 307 <i>Contact resistance shown is for the 3BT thermostat and does not include resistance of wire leads or connector.</i>
<b>Dielectric Strength</b>	1250 VAC, rms, 60 cycles for 1 minute (leads to case), per MIL-STD-202, Method 301
<b>Operating Temperature Range</b>	0°F to 350°F (-17.8°C to 176.7°C)
<b>Ambient Temperature Range</b>	-80°F to 400°F (-62.2°C to 204.4°C)
<b>Operating Temperature Tolerances</b>	± 10°F (± 5.6°C)
<b>Differential</b>	between opening and closing temperatures: 30°F (16.7°C)

Standard 3BT probe packages are comprised of the following physical features, but many other variants are available to meet your needs.

PLEASE NOTE: The orientation of the connector with respect to the package body is not controlled.

## Configuration Options

Custom configurations are available

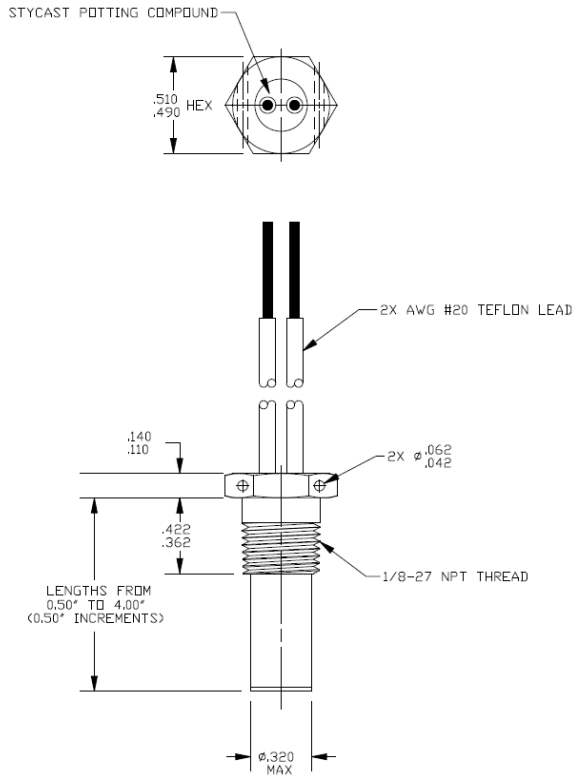
<b>Probe Body Thread Sizes</b>	Standard lengths are available in ½" increments, from 1.0" to 4". Standard probe bodies are available with the following thread sizes: 7/16" - 20 1/8" - 27 NPT
<b>Termination</b>	Standard connector is a Sealtron B80L1G-10SL-4P-F-M129 (or equivalent)
	Standard wire leads are AWG #22 stranded wire with white or black Teflon insulation (per MIL-W-22759) (Teflon is a trademark of E. I. Dupont de Namers and Co.)
<b>Finish</b>	The standard material is stainless steel
<b>Other</b>	Other styles are available, as well as custom designs

## Standard Part Numbers and Configurations

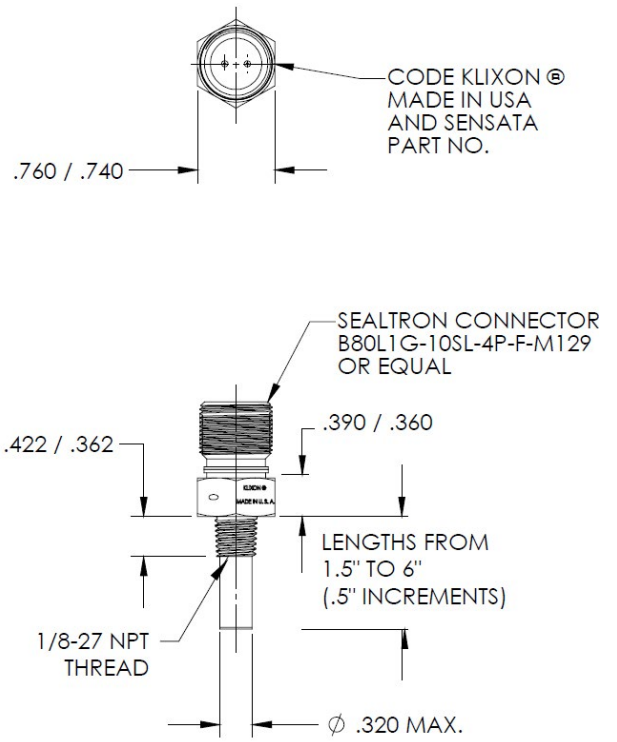
Many other styles are available

<b>21544</b>	1/8" pipe thread with leads
<b>21557</b>	1/8" pipe thread with connector
<b>21561</b>	7/16" - 20 thread with leads
<b>21562</b>	7/16" - 20 thread with connector

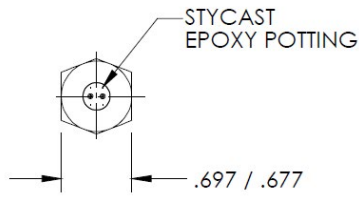
21544



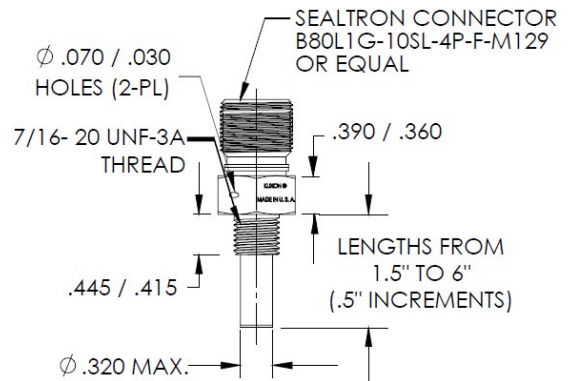
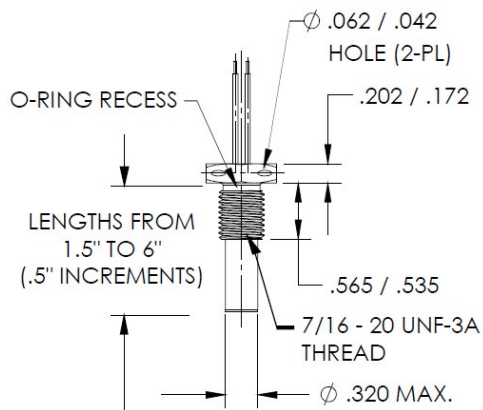
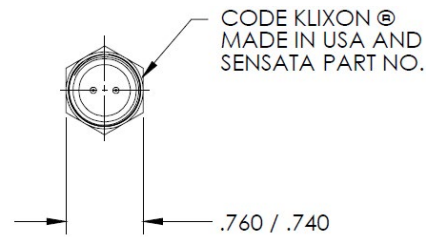
21557



21561



21562





## ORDERING OPTIONS

Example : 21557-06-XXX-03

21557 - 06 - XXX - 03

### Basic Package

21542 (or 21557, 21544, 21562, or 21561)

Basic package describes general physical appearance and basic thermostat incorporated into device

### Probe Length

Probe length times 2

(probe length is the length in inches from bottom of the hex to bottom of the device)

### Operating Characteristics

Assigned consecutively (Sensata will assign this number at the time your order is taken)

### Wire Leads

For wire leads, this is the length of wire in 6 inch increments (for 6" it would be 1, for 12" it would be 2, for 18" it would be 3, etc.). For connectors, contact Sensata Technologies for this code.



## WARNINGS



### 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.**



### 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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