



# 3NT | SERIES

## FIXED TEMPERATURE THERMOSTATS

### Introduction

Automatic reset thermostat designed to meet your specific application requirements. Its patented and tamper proof snap action bi-metal disc provides reliable and repeatable switch actuation. The 3NT is suitable for electrical loads ranging from dry circuits to 10A @ 240 VAC.

The core of the 3NT is the proven 1NT thermostat. Recognized by UL/CSA and KEMA/ENEC agencies, hundreds of millions of the 1NT device are in the field today used in a variety of HVAC, appliance, automotive and specialty applications.

For HVAC/R applications, the 3NT is compatible with a variety of refrigerants, including R410a, R22, R134a, R407c CO2 (R333a), Ammonia (R717), Propane (R290) and A2L (R32, R454A, R454B, R454C). Please reach out for other refrigerant options.

Manufactured at ISO 9001 certified manufacturing sites, its dry seal allows direct integration of the thermostat into a wire harness eliminating the need for extra connections.



### Features

- Automatic reset
- Small and easy to mount
- Fast thermal response
- Innovative dry seal design - protects from moisture and dust
- Reliable 100K cycle life
- High temperature - to 275°F (135°C)
- IP67
- ATEX-Certified versions available

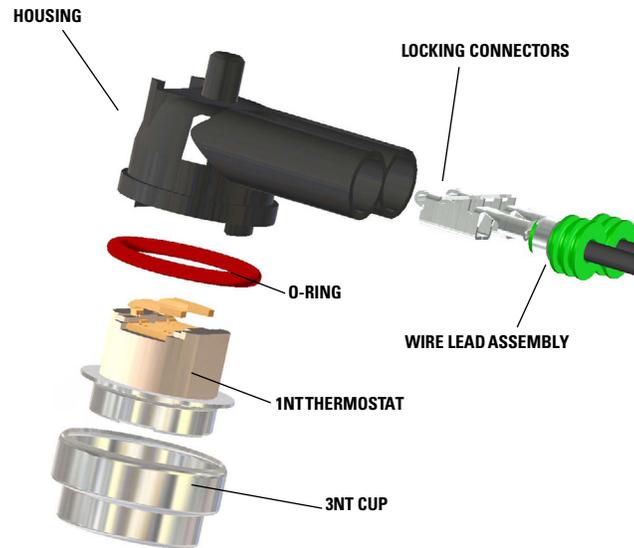
### Applications

- HVAC
- Commercial
- Dehumidifiers
- Freezers
- Heat pumps
- Ice makers
- Refrigerators
- Condensing or moist environments

## SPECIFICATIONS

Electrical Ratings	Agency	Cycles x1000	Volts	FLA	LRA	Amps (resistive)	VA
	UL (USA, Canada)	100	120 Vac	5.8	34.8	10	125
	100	240 Vac	2.9	17.4	10	125	
	30	120 Vac	10.0	40.0			
	30	240 Vac	10.0	40.0			
	100	30 Vdc			1		
	ENEC (Europe)	30	240 Vac			16	
<b>Operating Temperature</b>	0 to 135°C (32 to 275°F)						
<b>Ambient Temperature</b>	-40°C to maximum wire lead insulation						
<b>Temperature rating</b>	PVC - 105°C XLP - 125°C (Allow 15°C de-rating below wire insulation rating at maximum 10A current)						
<b>Minimum Nominal Temperature Differential</b>	8°C (15°F)						
<b>Dielectric Strength</b>	750 Vrms 1500 Vrms terminals to case						
<b>Standard Wire Leads</b>	18 AWG (1/32" or 1/16" wall thickness in either 105°C PVC or 125°C XLPE) 16 AWG (1/32" wall thickness in 105°C PVC)						

## ● 3NT DRY SEAL DESIGN



**Important Notice:** The 3NT is not hermetically sealed, and should not be submerged in liquid. For such applications, please contact Sensata.

## ● STANDARD TEMPERATURES AND TOLERANCES

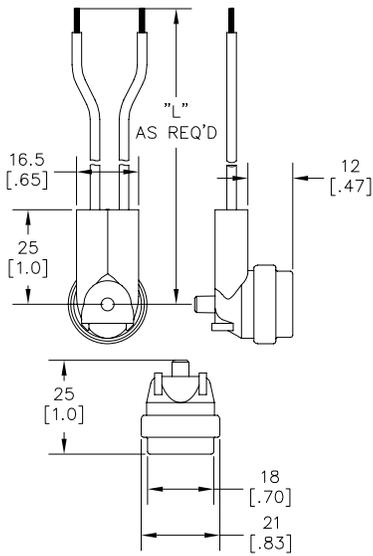
Nominal Top Temperature		Nominal Differential		Open Temperature		Close Temperature	
°F	°C	°F	°C	°F	°C	°F	°C
32 to 80	0 to 27	20 - 29	11 - 16	±5.5	±3	±7.5	±4
		30 - 38	17 - 21	±5.5	±3	±8.5	±4.5
		39 - 60	22 - 33	±5.5	±3	±10	±5.5
81 to 167	28 to 75	20 - 23	11 - 13	±5.5	±3	±7.5	±4
		24 - 29	14 - 16	±5.5	±3	±8.5	±4.5
		30 - 59	17 - 33	±5.5	±3	±10	±5.5
168 to 199 <sup>(1)</sup>	76 to 93 <sup>(1)</sup>	20 - 23	11 - 13	±5.5	±3	±7.5	±4
		24 - 29	14 - 16	±5.5	±3	±8.5	±4.5
		30 - 59	17 - 33	±5.5	±3	±9	±5
200 to 249 <sup>(1)</sup>	94 to 121 <sup>(1)</sup>	20 - 29	11 - 16	±6.5	±3.5	±8.5	±4.5
		30 - 38	17 - 21	±6.5	±3.5	±10	±5.5
		39 - 59	22 - 33	±6.5	±3.5	±12	±6.5
		60 - 99	34 - 55	±10	±5.5	±20	±11
250 to 275	122 to 135	24 - 38	14 - 21	±7.5	±4	±10	±5.5
		39 - 59	22 - 33	±7.5	±4	±14.5	±8
		60 - 99	34 - 55	±10	±5.5	±20	±11

<sup>(1)</sup> Minimum bottom temperature of 50°C (122°F)

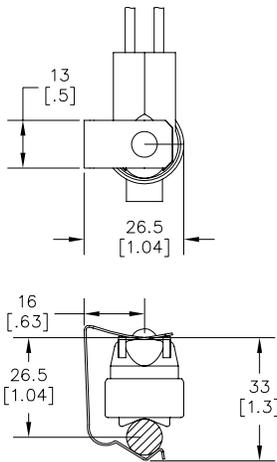
# TYPICAL PHYSICAL CHARACTERISTICS

Dimensions in mm (inches)

**Basic 3NT Dimensions**

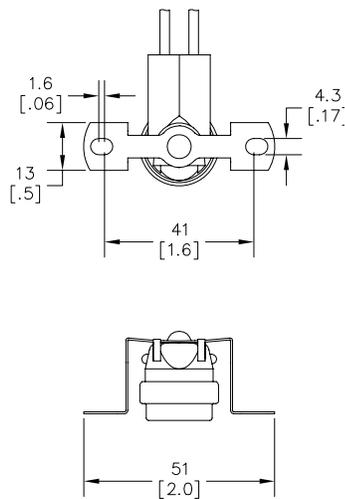


**Open Tube Mount Clip (3/8 Inch Shown at 90° CCW Rotation) 90° and 180° CW Rotations Available**

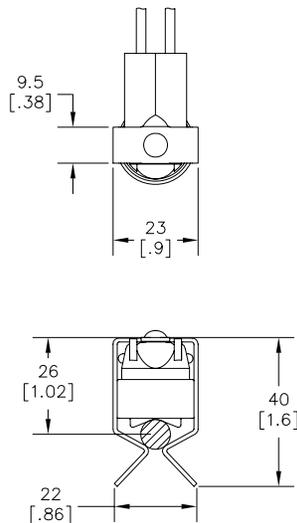


Additional Clips Available for [1/4], [5/16], [1/2], [5/8] tubes

**Surface Mount Clip**

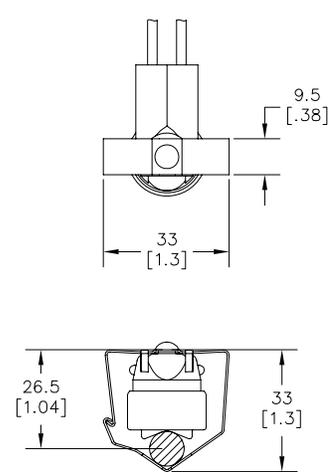


**Snap Tube Mount Clip For 5/8 Inch and 1/2 Inch Tubes**



Additional Clips Available for [3/4], [7/8] tubes

**Locking Tube Mount Clip (3/8 Inch Shown)**



Additional Clips Available for [1/4], [5/16], [1/2], [5/8] t tubes



## 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 ARCH 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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