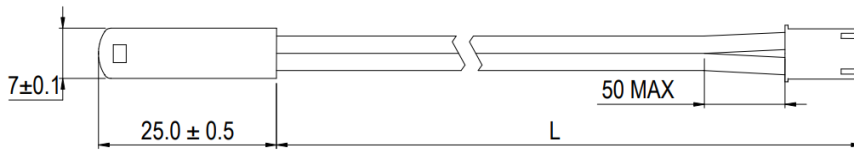


DESCRIPTION

NTC Thermistor assembled with 22 AWG White PVC INSULATED TWIN CABLE (UL2651). Thermistor encapsulated with a plastic housing specially designed for refrigeration Industry.



SPECIFICATIONS

SL NO	PARAMETER	VALUE	UNIT
1	Resistance at 25°C	1-100	KΩ
2	Resistance Tolerance	1, 3.5	%
5	Insulation Resistance	100	MΩ
6	Isolation Strength	1500	Vac
7	Response Time	20	Sec
8	Length(L)	100 to 3000	mm
9	Storage Temperature	-40 to 85	°C
10	Operating temperature	-40 to +85	°C

FEATURES

- High Stability & reliability
- Rugged construction
- Flame Resistant and Retardant
- High measuring accuracy
- Easy to install
- Complaint to RoHS Directive 2015/863/EU.

APPLICATIONS

- Refrigeration Appliances
- Cold storage
- Cooling Devices

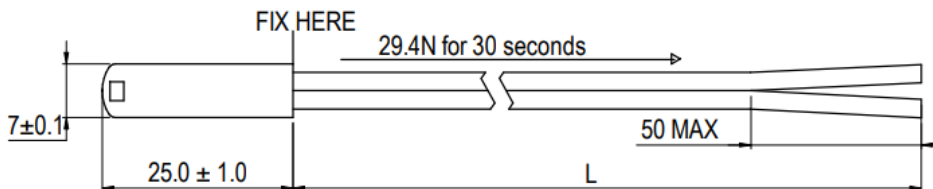
RELIABILITY SPECIFICATION

Description	Test Conditions	Characteristics Drift
Dry Heat Test	Elements are placed in a oven of temp. at $85^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 1000 (+48, -0)hr. After test the elements are stored in room temperature for one hour.	ΔR after test are less than $\pm 3\%$. ΔB after test are less than $\pm 2\%$.
Cold Test	Elements are placed in an oil bath of temperature at $-40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 1000 (+48, -0)hr. After test the elements are stored in room temperature for one hour.	ΔR after test are less than $\pm 3\%$. ΔB after test are less than $\pm 2\%$.
Thermal Shock Test	-40°C Air, 10 minutes) \rightarrow RT(Air, under 1min) \rightarrow 85°C Air, 10 minutes) for 5000 cycle. After test the elements are stored in room temperature for one hour.	ΔR after test are less than $\pm 3\%$. ΔB after test are less than $\pm 2\%$.
Damp Heat Test	Elements are placed in a chamber of temp. at $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and 85%RH for 1000 (+48, -0)hr. After test the elements are stored in room temperature for one hour.	ΔR after test are less than $\pm 3\%$. ΔB after test are less than $\pm 2\%$.

Mechanical Test

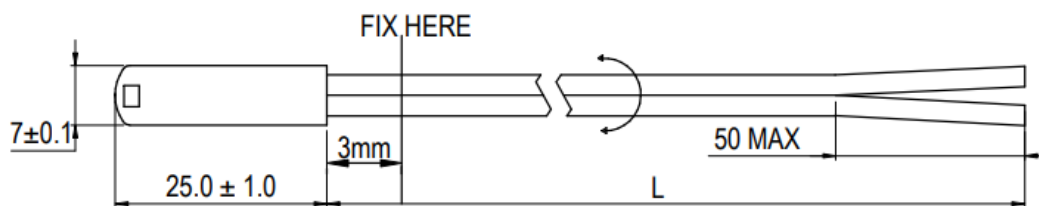
1. Terminal tensile strength test

Load tensile stress of 29.4N to axial direction slowly and keep it for 30 ± 5 sec. after the test characteristics, there should not be any physical damage or abnormalities in product characteristics.



2. Terminal bending test

The wire will be fixed at 3mm from its probe end. Apply load of 29.4N to the wire so that it makes 90 degree. Then put it back to original position. After two times of this action, characteristics, appearance of sensor shall not change.



RT CHART

Please refer to our website <https://www.thermosen.com/rt> for respective RT charts.

SOLDERING

1. Soldering Temperature: 320°C Max.
2. Soldering Duration: 6.0 Second Max.
3. Preheat Temperature: 160°C for 3.0 Sec.

PART LIST

Ordering Part Number	R ₂₅	R(TOL)	B(0/50)	B(TOL)	Curve type
	kΩ	± %	K	± %	
TNA-P-31102RXBR-LXXX	1K	1, 2, 3, 5	3934	1	R
TNA-P-31202RXBE-LXXX	2K	1, 2, 3, 5	3450	1	E
TNA-P-31225RXBD-LXXX	2.25K	1, 2, 3, 5	3892	1	D
TNA-P-31472RXBD-LXXX	4.7K	1, 2, 3, 5	3892	1	D
TNA-P-31502RXBD-LXXX	5K	1, 2, 3, 5	3892	1	D
TNA-P-31103RXBD-LXXX	10K	1, 2, 3, 5	3892	1	D
TNA-P-31103RXB4-LXXX	10K	1, 2, 3, 5	3410	1	4
TNA-P-31103RXBJ-LXXX	10K	1, 2, 3, 5	3995	1	J
TNA-P-31123RXB5-LXXX	12K	1, 2, 3, 5	3917	1	5
TNA-P-31153RXBJ-LXXX	15K	1, 2, 3, 5	3883	1	J
TNA-P-31203RXBD-LXXX	20K	1, 2, 3, 5	3892	1	D
TNA-P-31203RXBJ-LXXX	20K	1, 2, 3, 5	3883	1	J
TNA-P-31303RXBD-LXXX	30K	1, 2, 3, 5	3892	1	D
TNA-P-31503RXBJ-LXXX	50K	1, 2, 3, 5	3883	1	J
TNA-P-31503RXB2-LXXX	50K	1, 2, 3, 5	3990	1	2
TNA-P-31104RXBJ-LXXX	100K	1, 2, 3, 5	3883	1	J
TNA-P-31104RXBS-LXXX	100K	1, 2, 3, 5	3917	1	S

PART NUMBER SYSTEM

T N A P - 31 XXX RX BX LXXX CXX*

THERMOSEN

NTC

ASSEMBLY

PLASTIC
HOUSING TYPE

SERIES CODE

RESISTANCE
VALUERESISTANCE
TOLERANCE

BETA VALUE

WIRE LENGTH (Eg:
101 for 100mm
(10x10¹), 102 for 1000mm
(10x10²))CONNECTOR
TYPE

*for connector options, Please contact us.

CUSTOM DESIGN & SUPPORT

- Other resistance curve & tolerance are available on request
- End wire stripped and Tinned or with connector assembly.
- Part can be supplied with customised connectors

PACKING

- Bulk layer packing
- 100 in poly bag
- Custom packing solution will be provided.

Consult Thermosen Technologies Pvt. Ltd. for custom product requirement

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