



# NTC Thermometers

## TN 100 - TN 101 - TN 102

New  
CE



### Functions

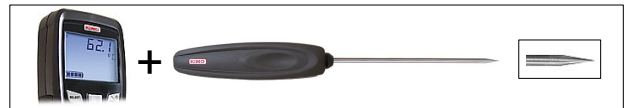
- Temperature
- Selection of units
- HOLD function
- Simplified mode function
- Minimum and maximum values
- Adjustable backlight
- Delta T (TN 102)
- Adjustable automatic shut-off

### Technical features

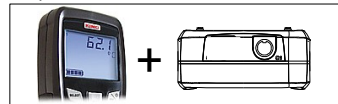
Measuring element.....	NTC : resistance at 25°C, $R_{25} = 10K\Omega$ Nominal Beta B25/85 value = $3,695K \pm 1\%$
Display.....	2 lines, LCD technology. Size 50 x 34.9 mm. 1 line of 5 digits with 7 segments (value) 1 line of 5 digits with 16 segments (unit)
Housing.....	Shock-proof made of ABS, IP54 protection or IP67 with CEP 150 protective cover
Keypad.....	Metal-coated with 5 keys
Cable.....	retractable, length 450 mm, up to 2.4 m when released (TN101)
Conformity.....	electromagnetical compatibility (NF EN 61326-1 guideline)
Power supply.....	1 alcaline battery 9V 6LR61
Operating temperature.....	from 0 to 50°C
Storage temperature.....	from -20 to +80°C
Auto shut-off.....	adjustable from 0 to 120 min
Weight.....	190g
Languages.....	French, English



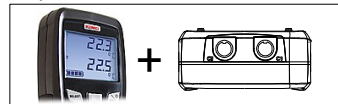
**TN 101 - Fixed probe**



**TN 100 - 1 channel**



**TN 102 - 2 channels**



## Specifications

	Measuring units	Measuring ranges	Accuracy*	Resolutions
<b>TEMPERATURE</b>				
<b>TN 101</b> <i>fixed probe</i>	°C, °F	from -40 to 120°C	±0.3°C (-40°C<T<+70°C) ±0.5°C beyond	0.1 °C
<b>TN 100</b> <i>1 channel</i>	°C, °F	from -40 to 120°C	±0.3°C (-40°C<T<+70°C) ±0.5°C beyond	0.1 °C
<b>TN 102</b> <i>2 channels</i>	°C, °F	from -40 to 120°C	±0.3°C (-40°C<T<+70°C) ±0.5°C beyond	0.1 °C

\*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with required compensation.

## Working principle

### Thermometer : NTC probe

Negative temperature coefficient probe are thermistance with a resistance that decreases with temperature according to the equation below :

$$R_{(T)} = R_{(T_0)} e^{\left( \frac{\alpha}{100} \times (T_0 + 273.15)^2 \times \left( \frac{1}{T + 273.5} - \frac{1}{T_0 + 273.5} \right) \right)}$$

RT= resistance sensor value at temperature T

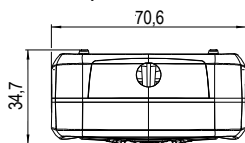
R(T<sub>0</sub>)= resistance sensor value at reference temperature T<sub>0</sub>

T and T<sub>0</sub> in °C

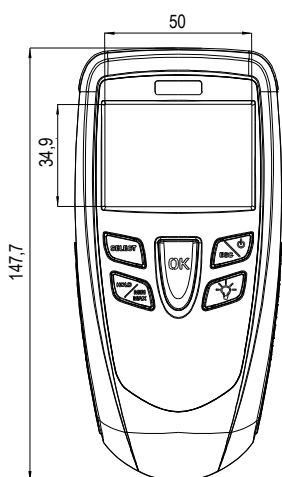
α and T<sub>0</sub> sensor specific constants

## Dimensions

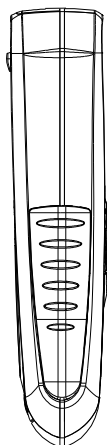
### • Top view



### • Front view



### • Side view



## Supplied with ...

● Included ○ Optional

DESCRIPTION	TN 100	TN 101	TN 102
NTC temperature probe	○	●	○
Penetration NTC probe		●	
Protective cover IP67	○	○	○
Calibration certificate*	●	●	●
Transport case	●	●	●

\*except class 100S



### Large choice of temperature probes (See related datasheet) :

- ambient
- penetration
- food industry penetration
- general use



## Accessories (See related datasheet)

<b>CE 100</b> Protective cover with magnet and holding system.		<b>CEP 100</b> Protective cover against water spray.	
<b>GST</b> Silicone heat-conductive grease for temperature probes		<b>RTS</b> Telescopic extension (for probe), 1m long and bent at 90°.	
<b>BN (See related data sheet)</b> Black ball Ø 150mm with junction for temperature probe Ø 4,5mm. Further dimensions available.			

## Warranty period

Instruments have 1-year guarantee for any manufacturing defect (return to our After-Sales Service required for appraisal).

[www.kimo.fr](http://www.kimo.fr)

### EXPORT DEPARTMENT

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