KIMO®
INSTRUMENTS

Supplied with* — **Calibration** certificate

NTC Thermometers
TN 100 - TN 101 - TN 102

New

CE

IP54

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} = 10KΩ Nominal
Beta B25/85 value = 3,695K ±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...........................5 choices: "Off", 3, 6, 10 or 15 minutes

Weight.....................................190g

Languages..............................French, English

TN 101 – *Fixed probe*

TN 100 – *1 channel*
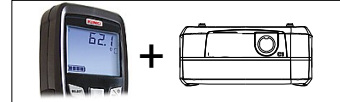
TN 102 – *2 channels*

*except class 100S
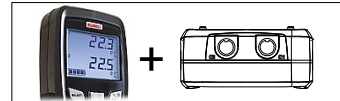
■ Specifications

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

$$R_{(T)} = R_{(T0)}\, e^{\left(\frac{\alpha}{100}\, x\, (T_0 + 273.15)^2\, x\, \left(\frac{1}{T + 273.5} - \frac{1}{T_0 + 273.5}\right)\right)}$$
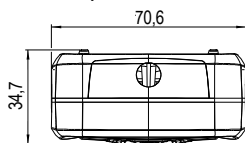
RT= resistance sensor value at temperature T
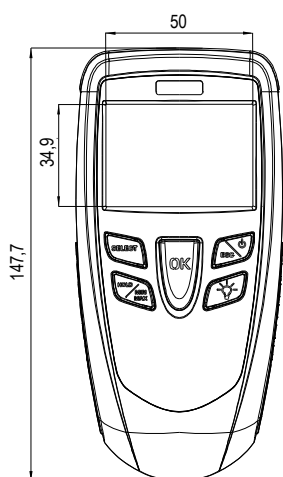$R(T_0)$= resistance sensor value at reference temperature T_0
T and T_0 in °C
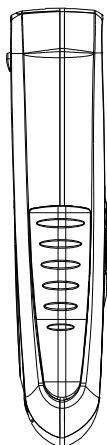α and T_0 sensor specific constants

■ Dimensions

• Top view

70,6
34,7

• Front view

50
34,9
147,7

• Side view

■ Supplied with ...

● Included   ○ Optionnal

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

465 mm
215 mm

■ Accessories *(See related datasheet)*

CE 100	**CEP 100**
Protective cover with magnet and holding system.	Protective cover against water spray
GST	**RTS**
Silicone heat-conductive grease for temperature probes	Telescopic extension (for probe), 1m long and bent at 90°.
BN (See related data sheet)	
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).