



NTC Thermometers

TN 100 - TN 101 - TN 102

New
CE



Functions

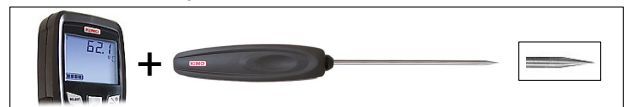
- Temperature
- Selection of units
- HOLD function
- Simplified mode function
- Minimum and maximum values
- Adjustable backlight
- Delta T (TN 102)
- Adjustable automatic shut-off

Technical features

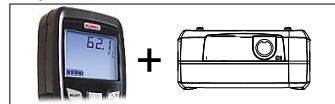
Measuring element.....	NTC : resistance at 25°C, $R_{25} = 10K\Omega$ Nominal Beta B25/85 value = 3,695K $\pm 1\%$
Display.....	2 lines, LCD technology. Size 50 x 34.9 mm. 1 line of 5 digits with 7 segments (value) 1 line of 5 digits with 16 segments (unit)
Housing.....	Shock-proof made of ABS, IP54 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



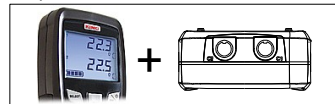
TN 101 - Fixed probe



TN 100 - 1 channel



TN 102 - 2 channels



Specifications

	Measuring units	Measuring ranges	Accuracy*	Resolutions
TEMPERATURE				
TN 101 <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
TN 100 <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
TN 102 <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

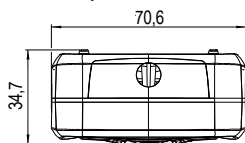
R(T₀)= resistance sensor value at reference temperature T₀

T and T₀ in °C

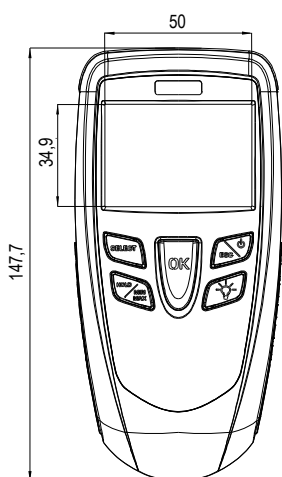
α and T₀ sensor specific constants

Dimensions

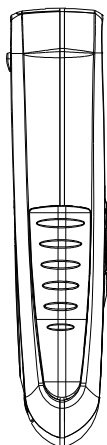
• Top view



• 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)

CE 100 Protective cover with magnet and holding system.		CEP 100 Protective cover against water spray.	
GST Silicone heat-conductive grease for temperature probes		RTS 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).

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