

USER MANUAL

# TK 61 – TK 62

## Thermocouple thermometers

### Device description

1. Backlight key
2. OK key
3. On/Off/Esc key
4. Selection key
5. Hold/min/max key



### General features

Measuring elements	K, J, T or S thermocouple
Channels number	TK61: 1 channel / TK62: 2 channels
Display	4 lines, LCD technology. Dimensions: 50 x 36 mm. 2 lines of 5 digits with 7 segments (value) / 2 lines of 5 digits with 16 segments (unit)
Housing	ABS, IP54 protection
Keypad	5 keys
Connector engineering	Compensated miniature female connectors
European directives	2014/30/EU EMC; 2014/35/EU Low Voltage; 2011/65/EU RoHS II; 2012/19/EU WEEE
Power supply	4 batteries AAA LR03 1.5 V
Battery life	180 hours
Ambience	Neutral Gas
Conditions of use (°C, %RH, m)	From 0 to +50 °C. In non condensing conditions. From 0 to 2000 m.
Storage temperature	From -20 to +80 °C
Auto shut-off	Adjustable from 0 to 120 min
Weight	210 g

### Technical specifications

Thermocouple probes (see related data sheet)

Models	Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
K Thermocouple	°C, °F	From -200 to +1300 °C	±1.1 °C or ±0.4% of reading value <sup>2</sup>	0.1 °C
J Thermocouple	°C, °F	From -100 to +750 °C	±0.8 °C or ±0.4% of reading value <sup>2</sup>	0.1 °C
T Thermocouple	°C, °F	From -200 to +400 °C	±0.5 °C or ±0.4% of reading value <sup>2</sup>	0.1 °C
S Thermocouple	°C, °F	From 0 to 1760 °C	±1 °C or ±0.4% of reading value <sup>2</sup>	0.1 °C

(1) All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out with required compensation.

(2) The accuracy is expressed either by a deviation in °C, or by a percentage of the value concerned. Only the greatest value is considered.

## Perform a measurement

- Turn on the device by pressing "On/Off/Esc".  
Put the probe(s) to the required location.  
The device displays the temperature measurement with the thermocouple type indicated below.  
If the thermometer used is the TK62 with two connected probes, the device displays the two measurements.
- Press "OK" to display the delta T between the two measured temperatures.

## Hold the measurement, display the maximum and minimum

During a measurement:

- Press "Hold/min/max".  
"Hold" is displayed and the measurement is frozen.
- Press again "Hold/min/max".  
The device displays the maximum value measured since the last questioning of the frozen channel at the top of the screen and the minimum value measured since the last questioning of the frozen channel at the bottom of the screen.  
For a TK 62 with two connected probes:  
The device displays the maximum value of the T1 probe measured since the last questioning of the frozen channel at the top of the screen and the minimum value of the T1 probe measured since the last questioning of the frozen channel at the bottom of the screen.
- Press again "Hold/min/max".  
The device displays the maximum value of the T2 probe measured since the last questioning of the frozen channel at the top of the screen and the minimum value of the T2 probe measured since the last questioning of the frozen channel at the bottom of the screen.
- Press again Hold/min/max.  
The device displays the maximum value of the delta T since the last questioning of the frozen channel at the top of the screen and the minimum value of the delta T since the last questioning of the frozen channel at the bottom of the screen.
- Press "On/Off/Esc" to return to the measurement display.

## Set the device

### Select the thermocouple type

The device is on and displays the measurement.

- Press "Selection".  
"PROBE" blinks on screen.
- Press "OK".  
The thermocouple type currently used blinks on screen.
- Press "Selection" until the required thermocouple type appears: K, T, J or S. Press "OK" to confirm the selection.  
"PROBE" blinks on screen.
- Press "On/Off/Esc" to return to the measurement display.

### Select the temperature unit

The device is on and displays the measurement.

- Press "Selection" until "UNIT" blinks on screen. Press "OK".  
The unit currently used blinks on screen.
- Press "Selection" until the required unit appears: °C or °F.
- Press "OK" to confirm the unit selection.  
"UNIT" blinks on screen.
- Press "On/Off/Esc" to return to the measurement display.

### Set the auto shut-off

The device is on and displays the measurement.

- Press "Selection" until "AUTO OFF" blinks on screen. Press "OK".  
The time before the device auto shut-off blinks at the bottom of the screen.
- Press "Selection" until the required time before the device auto shut-off appears: 15, 30, 45, 60, 75, 90, 105, 120 minutes or OFF.
- Press "OK" to confirm the selection.  
"AUTO OFF" blinks on screen.
- Press "On/Off/Esc" to return to the measurement display.

### Activate or deactivate the keys beep

The device is on and displays the measurement.

- Press "Selection" until "BEEP" blinks on screen. Press "OK".  
"OFF" or "ON" blinks on screen.
- Press "Selection" to activate the keys beep "ON" or deactivate it "OFF".
- Press "OK" to confirm the selection.  
"BEEP" blinks on screen.
- Press "On/Off/Esc" to return to the measurement display.

### Set the alarm

This function allows to activate a temperature alarm on channel 1 when the device reaches or exceeds a previously defined threshold. This threshold is between -200 and +1760 °C according to the thermocouple type of the probe.

The device is on and displays the measurement.

- Press "Selection" until "AL 1" blinks on screen.
- Press "OK".  
The first digit blinks.
- Press "Selection" to select the value of the first digit according to the thermocouple type of the probe: -, 0, 1 or OFF.
- If "Off" is selected, the alarm is deactivated. Press "OK" to confirm, "AL 1" blinks on screen.
- If -, 0 or 1 is selected, press "OK". The next digit blinks, press "Selection" to select its value then press "OK" to confirm. Perform the same procedure to select the value of the following digits (press "On/Off/Esc" to return to the previous digit). Press "OK" when the last digit is set, "AL 1" blinks on screen.
- Press "On/Off/Esc" to return to the measurement display.

### Activate the backlight

The device is on.

- Press "Backlight" to activate the device backlight.
- Press again this key to deactivate the backlight.



### Turn off the device

To turn off the device:

- Carry out a long press on "On/Off/Esc".

### Replace the batteries

- Remove the front part at the back of the device.
- Change the old batteries by AAA LR03 1.5V batteries.
- Replace the front

### Safety instructions



In order to avoid any risk of a voltage on the surface of the element on which we want to perform a temperature measurement, the thermocouple(s) **MUST NOT** be under a voltage higher than 30 V alternating or 60 V direct voltage relating to earth.



In order to avoid any damage on the device, the voltage between the two thermocouples **MUST NOT** be higher than 0.5 V.

