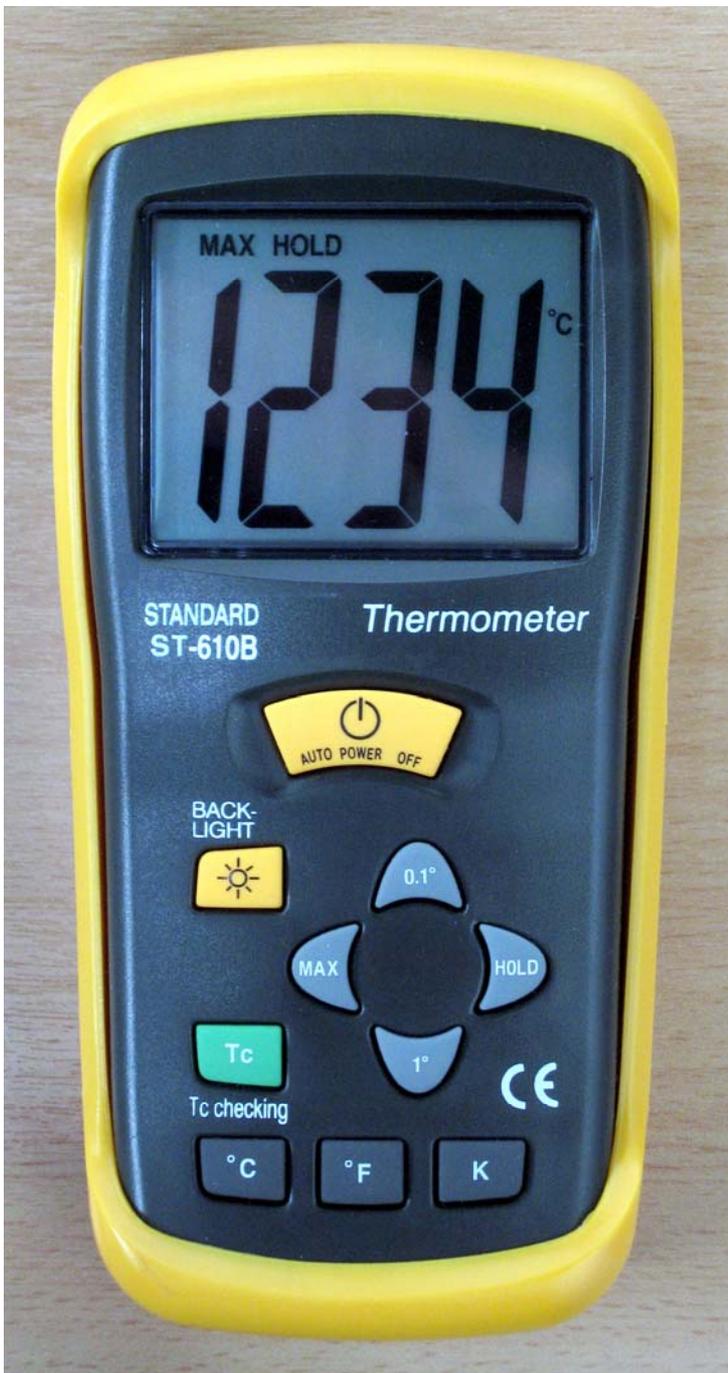


ST610B Portable Pyrometer



Actual size

- ◆ User selectable thermocouple types: R, S, K & N
- ◆ Large clear 34mm display
- ◆ Blue display backlight
- ◆ Long battery life (PP3)
- ◆ Auto power off
- ◆ Units: °C, °F, Kelvin
- ◆ Resolution 1° / 0.1°
- ◆ Maximum temperature logging feature
- ◆ Display hold feature
- ◆ Rubberised protective holster
- ◆ Storage case
- ◆ K type thermocouple supplied
- ◆ Wide choice of thermocouples available

Applications include spot checking for all types of kilns including gas, electric, Raku and wood burners

SPECIFICATION

Temperature

Temperature measurement ranges

R Type:-40°C to 1450°C
S Type:-40°C to 1450°C
K Type:-40°C to 1325°C
N Type:-40°C to 1275°C

Accuracy

±0.25% FSD ± 1 digit
(does not include thermocouple error)

Readings per second: 4

Cold Junction Compensation

Precision thermistor (calibrated)

Environmental

Operating temperature range: -20°C to 50°C
Storage temperature range: -20°C to 60°C

Enclosure

Material: ABS Size: 170x85x45mm
Sealing: IP53 (L x W x H)

Error Handling

Thermocouple failure detection

Electrical

Power supply

Replaceable standard alkaline
9V (PP3) dry battery types:
IEC 6F22, NEDA 1604 etc.

Battery Life: > 100 hours

Auto power-off: 15 mins.

Connector

Standard "miniature"
thermocouple connector
(7.9mm between pin centres)

Overload withstand

60VDC 24VAC

OPERATION

Turning on

Press the power button to turn the instrument on. Press it again to turn the instrument off. The instrument will automatically turn off after 15 minutes if no buttons are pressed. This auto power off feature is disabled if the instrument is in "MAX" mode (see below).

When turned on the instrument tests the display (all display segments are turned on for 1 sec), then shows the thermocouple type selected (for 1 sec). This will be:-

⎓.r 'R' type thermocouple ⎓.5 'S' type thermocouple ⎓.H 'K' type thermocouple ⎓.n 'N' type thermocouple

The instrument then shows the temperature measured by the thermocouple. The displayed units can be changed by pressing the °C, °F and K buttons. The instrument remembers the units selected even when turned off.

Thermocouple type selection

To change the thermocouple type turn the instrument off. Press the Tc button and keep it held down while turning the instrument on. Wait for the thermocouple type display to appear then release the Tc button. Select the required thermocouple type with either the 0.1° or the 1° buttons. Confirm the selection by pressing the HOLD button. The instrument will switch off. Turn the instrument on and check that the required thermocouple type is displayed. The instrument remembers the selected thermocouple type. ***It is important that the thermocouple type selected is the same as the type of thermocouple actually in use else large errors will be present in the displayed temperature.***

Other Features

The MAX button puts the instrument into a recording mode and it displays the maximum temperature reached. In this mode the auto power-off feature is disabled. To cancel the MAX mode press the MAX button again. While in MAX mode pressing the HOLD button stops recording of the MAX temperature. Press the HOLD button again to resume recording.

The HOLD button freezes the reading on the display. To cancel HOLD mode press the HOLD button again.

Pressing the Tc button causes the internal temperature of the instrument to be displayed (cold junction temperature). Release the Tc button to show the normal display.

FURTHER DETAILS

Operating instruction handbook can be downloaded from our web site at:

<http://www.stafford-inst.co.uk>

Issue: 1.0 dated 23 June 2006
<http://www.stafford-inst.co.uk/docs/st610b/data610b.pdf>

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