MINCO

TI242 Handheld Thermometer

Bleeding-edge technology in an ergonomically optimized package

Overview

Minco's TI242 Indicator is the most versatile hand-held temperature indicator available today, offering easy but feature-rich monitoring of RTDs and thermocouples in a portable and convenient form factor. The indicator combines robust capabilities with superior ease-of-use, making it the ideal tool for on-the-fly temperature measurement and the analysis and repair of HVAC, scientific, and other thermal systems. At the same time, its convenience and feature set makes it a valuable tool for engineers in any field.

Robust Feature Set

The TI242's industry-leading feature set includes the ability to read from a wide variety of sensors, and to display those live or logged readings using graphs as well as the ability to apply math to the results. Datalogged readings can be read on a wireless device using the TI242 application or downloaded to a PC for further analysis.

Designed for Convenience

Between the TI242's easy one-hand operation, the sunlight-readable display, and the backlit gel keypad, the indicator is designed for use in close quarters. Its kickstand and magnetic connector allow it to be left in place and the readings monitored on the TI242 iOS app.

The Accuracy of Match Calibrated Sensors

Temperature sensors' unique Callendar Van Dusen coefficients can be entered into the TI242 to calibrate it. Match calibrated sensors yield very high sensor accuracy, often better than +/-0.1 °C.

TI242 Fast Facts

- Accepts Thermocouples and 2- and 3-Wire RTDs
- Calibration Options Virtually Eliminate Read Errors
- 400-Hour Battery Life[1]
- Ergonomic Design

- Bluetooth LE 5.0 with up to 200m Range
- Built-in Graphing Including Scrolling of Logged Data
- Remote Operation via iOS App
- Programmable Alarm

- Internal Memory Stores up to 261,000 Samples[2]
- Sunlight-Readable Display
- Tested to Meet CE Requirements

1 Datalogging with screen off
2 One data source and math disabled

Specifications

Learn about the TI242's extensive capabilities

Overview

Consult the following specifications for information on the TI242 Temperature Indicator:

Math Options

Difference, Range (Max-Min), Maximum, Minimum, Average, Standard Deviation.

Sensors

Works with K, J, T, E, B, N, R, S-type thermocouples and 2-wire and 3-wire PT100 and PT1000 RTDs (.00385 Ω/Ω/Deg C temperature coefficient)

Pluggable terminal blocks compatible with most sensors; standard thermocouple plug included with unit.

Resistance-calibrated components can be selected to fine-tune accuracy.

Data

Programmable scan rate from 0.4 to 65 seconds per sample. Each sample has user-selected CH1, CH2, and Math data.

Up to 261,067 samples can be stored in the indicator, depending on the number of data sources and whether math is employed:
- One data source: 261,067 samples
- Two data sources: 130,533 samples
- Two data sources plus math: 87, 022 samples
- Switches between F°, C°, and K independently from the IOS App.

Built-in graphing – data lines displayed live and can be toggled with single button click. Can also scroll through logged data via USB or via Bluetooth to the iOS app.

Resolution

Data resolution:
- 0.1° for temperature below 999.9
- 1° for temperature above 1000

Display

Sunlight-readable color LCD; 2.4" diagonal, 240x320 pixels

Wide 70° viewing angle

Alarm

Programmable alarm features screen blink alert, audible buzzer beep, and keypad backlight blinking. Can trigger on CH1, CH2, and/or Math.

Alarm also alerts the iOS application, which triggers alerts on the mobile device.

Charging and Power

NiMH AA batteries; rechargeable via USB or fresh batteries can be swapped in. Any non-rechargeable AA batteries can be used to power the indicator.

Battery Life:
- Datalogging with screen off: Up to 400 hours
- Measuring data with screen on at default brightness (level 4): Up to 122 hours

Unit can be powered via USB for long-term projects if using ungrounded temperature sensors.

Connectivity

Bluetooth Low Energy 5.0: 200m line-of-sight range. Used for viewing live data, sounding an alarm, and downloading logged data usingt the iOS app (iPhone 6 or above).

USB micro-b connection permits data transfer as well as powers and recharges the indicator's batteries

Enclosure

Custom ergonomic enclosure designed specifically for convenient, one-handed operation

Stand and magnetic connector allow hands-free operation

Backlit silicone keypad

Dimensions

155mm long x 75mm wide x 35mm thick (6.1" x 3" x 1.4")

Weight: 287 grams (with batteries)

Certification

Tested to meet Level 3 or 4 CE requirements.