SKUTT
CERAMIC PRODUCTS

Dual Input Digital Thermometer (Pyrometer) Instructions

Introduction

The Dual Input Digital Thermometer (Pyrometer) may be used for monitoring the temperature and checking the accuracy of a kiln . It has two Type K thermocouple inputs (T1/T2) so it is possible to monitor two kilns or multiple sections of one kiln at the same time. It will even calculate the difference in temperature between the two readings (ΔT).

The HOLD feature is convenient when you are using it as a hand held unit and are removing the thermocouple from the kiln.

The MIN/MAX feature allows you to record any portion of the firing so you can determine the Minimum and Maximum temperatures that were achieved. This is very helpful information to have when developing glazes and troubleshooting kilns.

The Dual Input Thermometer can be used as a hand held unit or affixed to the kiln by utilizing the pyrometer mounting flange and wall mount hole on the back of the water resistant thermometer cover. It also is equipped with a convenient flip out back that allows it to freely stand on a shelf or table.

The unit comes with a 9 Volt Battery already installed and has an auto off feature that helps preserve the battery.

The Dual Input Thermometer comes with a 3 year warranty. This warranty does not cover the thermocouple.

Contents

1 - Dual Input Thermometer

1 - 8″ Type K Thermocouple and Block with 5 ft. wire extension.

1 - Mounting flange with screws.

Optional kit is available for a second thermometer and mounting flange.

Set-Up

Place the thermocouple plug into the thermocouple receptacle located on the top of the thermometer. The plug and receptacles are labeled with "+" and "-" symbols to indicate the proper orientation. There are two receptacles labeled T1 and T2.

If you are going to be leaving the thermocouple in the kiln we suggest using the mounting flange included with the kit. This ensures proper spacing between the kiln and the thermocouple block to make sure the wires do not over heat.

Most Skutt Kilns have an optional pyrometer hole already punched in the kiln jacket. If you use this location you will only need to drill a 1/2″ hole through the brick and mount the flange using the self tapping screws provided. Insert the thermocouple into the flange and tighten the set screw. For an accurate reading the thermocouple should protrude at least 1″ into the kiln chamber.

If there is not a hole in the kiln jacket consult the kiln manufacturer for proper installation.

There is a hole located on the back of the Thermometer case for mounting the unit to a wall. When choosing your location be sure the wires are routed away from the kiln jacket to prevent over-heating.

(continued)

Dual Input Thermometer Instructions

Operation

ALWAYS

- Test the Thermometer to make sure it is operating properly
- Inspect temperature probes to make sure there are no breaks or shorts.
- Double check all connections before testing.
- Wear a fire rated glove when working with the pyrometer near a hot kiln.

NEVER

- Insert the pyrometer into an electrically charged medium.
- Touch the pyrometer after it has been inserted in a hot kiln

ON/OFF - Press the power button (the round button located just below the bottom left corner of the display). It will display the temperature of the thermocouple that was last used. If there is not a thermocouple installed in the current setting the display will read oPEn. Toggle the T1/T2/ΔT button until you see a temperature reading. The display will automatically turn off if there are no key presses after 20 minutes to conserve battery life unless the unit is in Record Mode (See MIN/MAX).

°C/°F - Toggle the temperature scale between Fahrenheit and Celsius using this key at anytime. If it is set to read in Fahrenheit you will see a °F located in the bottom right corner of the display. If it is set to read in Celsius you will see a °C displayed in the center right area of the display.

T1/T2/ΔT - Use this key to toggle between the two thermocouple readings. The third toggle point will give you the difference in degrees between T1 and T2. The current setting will be listed in the bottom left corner of the display. If there is only one thermocouple installed the display will read oPEn on the uninstalled thermocouple setting and Err for **ΔT.**

MIN/MAX - To use this feature press and hold the MIN/MAX key down until REC appears in the bottom center of the display, then release the button. The Thermometer is now in Record Mode and will keep in memory the Highest and Lowest temperature readings in memory until the unit is powered off. To view the highest, lowest, or current readings use the MIN/MAX key to toggle back and forth. When the MIN or MAX setting is being viewed you will see MIN or MAX in the bottom right corner of the display. To turn off the REC setting hold down on the MIN/MAX button until REC disappears from the screen. When the Thermometer is in Record Mode the AUTO SHUTOFF feature is disabled and the display will not turn off to conserve battery life.

HOLD - Press the HOLD button to Hold the temperature display at its current reading. When the temperature is in Hold Mode, the word HOLD will appear at the top center of the display. To move it out of Hold Mode press the HOLD button again.

Maintenance

When replacing the battery be sure to first unhook all thermocouple connections. Remove the thermometer case. Remove the 4 screws holding the back cover in place and remove the back cover. Replace the battery and reassemble in reverse order.

Specifications

Input Type - Type K
Range - -58 **°F to 2350 °F**
Accuracy - + or - 0.4%
Update Rate - 2.5 times per second

Operating Temp - 32 **°F to 122 °F**
Storage Temp. - -13 **°F to 158 °F**
Power Supply - 9 Volt Alkaline Battery