

# Digital 250 Portable/Fixed Kilns

THERMOCOUPLE PYROMETER

## DIGITAL 250 LOW-COST PORTABLE DIRECT READING PYROMETER



### FEATURES

- Large LCD Display reads in °F or °C
- Meter Accuracy:  $\pm 0.3\%$  Reading
- Typical Error:  $\pm 1.8^\circ\text{F}$  or  $\pm 1.0^\circ\text{C}$
- Temperature Ranges:  $32^\circ\text{F}$  -  $2462^\circ\text{F}$  ( $0^\circ\text{C}$  -  $1350^\circ\text{C}$ )
- Records Min/Max Temperatures
- Display Hold Button
- Meter housed in Molded Rubber Boot
- Standard 9 Volt Battery
- Low Battery Warning Display
- Three Year Meter Warranty
- Selectable Fixed Mount or Portable Thermocouples
- Interchangeable "K" Type Thermocouples

### APPLICATIONS

The Pyro Digital 250 SDT141S-Kiln Pyrometer can accommodate a wide variety of thermocouple tips that are suited for many types of industrial and commercial temperature measurement applications.

- Kilns
- Ovens
- Furnaces
- Heat Treating
- Ceramics
- Pottery
- Molten Metal
- Crucible

### DESCRIPTIONS

The Pyro Digital 250 Series Model SDT141S-Kiln Pyrometer is a low cost, high temperature measurement system for use in a wide range of kiln and furnace applications.

**Portable applications:** The Model SDT141S-Kiln meter is integrated with Pyro's Industrial heavy duty extension arms and foundry style thermocouples

**Single Fixed applications:** The Model SDT141S-Kiln meter can be used with a fixed in place foundry thermocouple for continuous temperature monitoring.

**Multiple Fixed Application:** The Model SDT141S-Kiln meter accepts mini flat pin thermocouple connections that are attached to Pyro's Fixed foundry thermocouple. The meter can be easily disconnected and reconnected to thermocouples in other locations thus enabling multiple temperature measurements.

The handheld meter case is made from durable plastic, which is enclosed by a shock resistant rubber boot with a flip-out rear bracket for stand-up viewing. The thermocouple-input jack is a standard mini flat pin connector for easy thermocouple interchangeability. The SDT141S-Kiln accepts K thermocouple inputs from Pyro's Foundry Style thermocouples. It can also accept type J thermocouple inputs. Instrument accuracy is  $\pm 0.3\%$  reading. Pyro offers a variety of K style thermocouples to meet most process measurement applications.

### OPERATION

The Pyro Digital 250 Series Model SDT141S-Kiln pyrometer is easy to operate from the front keypad. Simply install the appropriate thermocouple, select from the keypad input type K thermocouple, select temperature °F or °C and select display resolution  $1/10^\circ$  or  $1^\circ$ , and you are ready to measure the process temperature. In addition, if you wish to check temperature variations over a period of time, the meter has a record feature where you can also view the minimum or maximum temperatures on the meter's display.

- Simplicity of Operation
- Complete Line of Interchangeable Arms and Thermocouples
- Durability/Ruggedness
- Min/Max and Actual Temperature



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# Digital 250 Portable/Fixed Kilns

## SPECIFICATIONS

Selectable Readout & Resolution:	°F or °C (1/10° from 0 - 999.9° or 1° over 1000°)
Temperature Range:	Type K: 32°F - 2462°F (0-1350°C) Type J: 32°F - 1832°F (0-1000°C)
Accuracy:	±0.3% of Temperature Displayed, typical ±1.8°F or ±1.0°C
Ambient Temperature Range:	40°F to 120°F ( 5°C - 50°C )
Digital Display:	4 Digits - Characters 1/2" High LCD
Cold Junction Compensation:	Automatic
Power:	9.0 Volt Alkaline Battery, 100 Hours Continuous Operation

## CALIBRATION

- The Pyro SDT141S-Kiln Pyrometer comes complete factory calibrated traceable to NIST Standards.
- Optional "Certificate of Calibration" per point to NIST Standards can also be provided.
- Expert factory service is also available for periodic calibration or maintenance.

## PRODUCT INFORMATION

When ordering specify the Pyro Digital 250 Model SDT141S-Kiln Pyrometer and the required interchangeable Extension Arms and Thermocouples from below to meet your applications.



## WARRANTY

Good performance and reliability are what you expect when you buy precision products from The Pyrometer Instrument Company, Inc. The Pyro Digital 250 SDT141S-Kiln Pyrometer comes complete with a three-year factory warranty on the electronic meter and a one-year factory warranty on all hardware items. For complete details see our Product Warranty Page.

Interchangeable "K" Style Fixed Installation or Portable Thermocouples are shown below.

### FIXED INSTALLATION APPLICATION KILN/OVEN THERMOCOUPLE

The Pyro Model 501T831 Industrial Foundry Style Thermocouple is constructed from 446 Stainless Steel bar stock insuring long life in high temperature oxidizing atmospheres. The thermocouple is 8" long and 1/2" diameter. The thermocouple lead wire immediately following the thermocouple is covered with 8" porcelain fish spine beads for added lead wire temperature protection. The total amount of lead wire including the fish spine beads is 27", this wire terminates into a type K mini flat pin thermocouple connector. This connector easily plugs or unplugs into Pyro's Model SDT141S digital meter.



### PORTABLE APPLICATION KILN/OVEN INTERCHANGEABLE "K" TYPE ARM & THERMOCOUPLES

Pyro offers a wide range of industrial thermocouple styles to meet your applications. Pyro's style of immersion thermocouples allow for immersion measurement of many non-ferrous molten materials. Pyro immersion thermocouples attach securely into the Model K17-RM immersion pyrometer extension arm. All Pyro immersion thermocouples are interchangeable. Connections are keyed to ensure correct attachment. Custom thermocouples are available upon request, consult factory.

**Accuracy on "K" Style Thermocouples**  
500°F - 2500°F  $\pm 3/4\%$

#### Model K17-RM

Rigid Extension Arm  
17" Rigid Arm including Rubber Grip and  
24" Flexible thermocouple Cable



#### Model T-11

Closed End, Bare Wire, Welded Tip  
16 & 22 Gauge Wire  
Overall Length 18"  
Maximum Temperature 1450°F (788°C)  
Response Time 7-10 seconds



#### Model T-16

Type 446 SS Protective Tube, & Dia.  
Immersion Length 8"  
Overall Length 21"  
Maximum Temperature 2500°F (1400°C)  
Response Time 7-10 seconds



**PYRO'S AUTHORIZED REPRESENTATIVE:**