

# Analog Immersion

THERMOCOUPLE PYROMETER

## PORTABLE DIRECT READING PYROMETER



### DESCRIPTION

The Pyro Immersion Pyrometer is a rugged, portable, easy-to-read thermocouple pyrometer that utilizes interchangeable and reusable immersion thermocouples. Temperature accuracy to  $\pm 1.0\%$  of reading is achieved by employing an automatic internal cold end junction compensator to prevent temperature measurement errors due to ambient temperature variations. The Pyro Immersion Pyrometer comes complete with a rugged cast aluminum housing, integral extension arm and is ready to use with a wide variety of optional thermocouples.

### FEATURES

- Portable, Easy-to-Read 4-3/4" Scale
- Accuracy:  $\pm 1.0\%$  Reading
- Temperature Ranges: 0°F - 2500°F (0°C - 1400°C)
- Four Models Available
- Automatic Cold End Junction Compensation
- Rugged Cast Aluminum Housing
- No Batteries Required
- Rigid or Flexible Extension Arms Available
- Interchangeable "K" Type Thermocouples Available

### APPLICATIONS

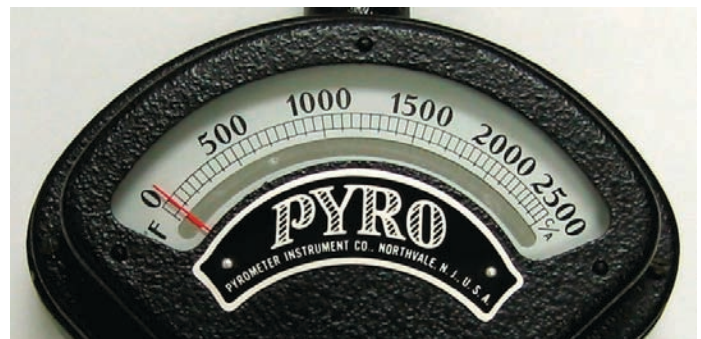
The Pyro Immersion Pyrometer can accommodate a wide variety of thermocouple tips that are suited for many types of non-ferrous molten metals.

- Foundries
- Castings
- Molten Copper
- Molten Tin
- Molten Brass
- Molten Bronze
- Molten Aluminum
- Molten Zinc

### OPERATION

The Pyro Immersion Pyrometer is easy to operate and requires no power source. Simply attach the appropriate thermocouple to the Pyro Immersion Pyrometer's integral extension arm. The operator can adjust the extension arm angle to target "knuckle" as required for the application. After the Pyro Immersion Pyrometer is immersed into the molten metal being measured, the temperature is read on the direct reading analog meter.

- Simplicity of Operation
- Interchangeability
- Durability/Ruggedness
- No Batteries Required



**Mirrored Scale Ensures  
Accurate Temperature Reading**



The Pyrometer Instrument Company, Inc. • 92 North Main Street, Bldg 18D • Windsor, NJ 08561 • USA  
Telephone: (609) 443-5522 • Fax: (609) 443-5590 • e-mail: sales@pyrometer.com  
Visit Our Website: [www.pyrometer.com](http://www.pyrometer.com)

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## SPECIFICATIONS

Pyro offers several extension arm lengths to meet your applications. Rigid extension arms are constructed from rugged 1/2" diameter tubes with protective chrome plating, available in standard 27" or 43" lengths. All extension arms incorporate a saw tooth knuckle for ease of operation. Custom extension arms are available upon request, consult factory.

Model Number	Extension Arm Length	Temperature Scale	Degree Per Division
21F	27"	0 - 2500°F	50
41F	43"	0 - 2500°F	50
21C	27"	0 - 1400°C	20
41C	43"	0 - 1400°C	20

## CALIBRATION

- The Pyro Immersion 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

The Pyro Immersion Pyrometer comes with an integral mounted extension arm and operator manual. Thermocouple support bracket and interchangeable thermocouples are available as an option. When ordering specify model number.



## WARRANTY

Good performance and reliability are what you expect when you buy precision products from The Pyrometer Instrument Company, Inc. The Pyro Immersion Pyrometer comes complete with a one-year factory warranty. For complete details see our Product Warranty Page.

Interchangeable "K" Style Thermocouples & Support Bracket are shown below.

## INTERCHANGEABLE "K" IMMERSION TYPE THERMOCOUPLES

Pyro offers a wide range of industrial thermocouple styles to meet your applications. Pyro's many styles of immersion thermocouples allow for immersion measurement of many non-ferrous molten materials. Pyro thermocouples attach securely into the Pyro Immersion Pyrometer extension arms. All Pyro Immersion type 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 ±3/4%

### 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-12

Closed End, Bare Wire, Welded Tip  
16 & 22 Gauge Wire  
Overall Length 24"  
Maximum Temperature 1450°F (788°C)  
Response Time 7-10 seconds



### Model T-14

Open End, Bare Wire Tip  
16 & 22 Gauge Wire  
Overall Length 24"  
Maximum Temperature 1450°F (788°C)  
Response Time 7-10 seconds



### Model T-16

Type 446 SS Protective Tube, 1/2 Dia.  
Immersion Length 8"  
Overall Length 21"  
Maximum Temperature 2500°F (1400°C)  
Response Time 7-10 seconds



### Model T-18

Type 446 SS Protective Tube, 1/2 Dia.  
Immersion Length 12"  
Overall Length 25"  
Maximum Temperature 2500°F (1400°C)  
Response Time 7-10 seconds



### Model SP-SPT Thermocouple Support Bracket

(for above Model T-16 & T-18)

The Model SP-SPT Thermocouple Support Bracket assists in preventing the protected tube style thermocouple's 1/2" thick ceramic base from breaking should the operator bang the thermocouple against the crucible while removing slag.

Note: For removing slag a stiff wire brush is recommended for this procedure.



**PYRO'S AUTHORIZED REPRESENTATIVE:**