

Analog Surface

THERMOCOUPLE PYROMETER

ANALOG SURFACE PORTABLE DIRECT READING PYROMETER



FEATURES

- Portable, Easy To Read 4-3/4" Scale
- Accuracy: $\pm 1.0\%$ Reading
- Temperature Ranges: 0°F - 1200°F (0°C - 650°C)
- Eight Models Available
- Automatic Cold End Junction Compensation
- Rugged Cast Aluminum Housing
- No Batteries Required
- Rigid or Flexible Extension Arms Available
- Interchangeable "J" Type Thermocouples Available

DESCRIPTION

The Pyro Surface Pyrometer is a rugged, portable, easy-to-read thermocouple pyrometer that utilizes interchangeable and reusable 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 Surface Pyrometer comes complete with a rugged cast aluminum housing and is ready to use with a wide variety of optional rigid and flexible extension arms and rugged thermocouples.

APPLICATIONS

The Pyro Surface Pyrometer can accommodate a wide variety of thermocouple tips that are suited for many types of metallic, non-metallic, flat, curved or rotating surfaces.

- Foundries
- Rolling Mills
- Casting
- Heat Treating
- Rubber Processing
- Ceramics
- Rotating Rolls
- Steam Traps

OPERATION

The Pyro Surface Pyrometer is easy to operate and requires no power source. Simply screw the appropriate thermocouple and extension arm to the Pyro Surface Pyrometer's cast aluminum housing. The operator can adjust the extension arm angle to target "knuckle" as required for the application. After the Pyro Surface Pyrometer contacts the surface of the object being measured, the temperature is read on the direct reading analog meter.



Mirrored Scale
Ensures Accurate
Temperature
Reading



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SPECIFICATIONS

Model Number	Temperature Scale	Degree Per Division
31F	0-400°F	5
32F	0-600°F	10
33F	0-900°F	10
34F	0-1200°F	20
31C	0-200°C	5
32C	0-300°C	10
33C	0-500°C	10
34C	0-650°C	20

CALIBRATION






- The Pyro Surface 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.

ACCESSORIES

Interchangeable "J" Style Thermocouples, Extension Arms & Support Bracket are shown below.

INTERCHANGEABLE CONTACT TYPE EXTENSION ARMS

Pyro offers a wide range of industrial rigid and flexible extension arms to meet your applications. Rigid extension arms are constructed from rugged 1/2" diameter tubes with protective chrome plating, available in standard 12" length. All extension arms incorporate a saw tooth knuckle for ease of operation. Flexible extension arms utilize stainless steel flexible armor between the handle grip and the extension arm. All Pyro contact extension arms are completely interchangeable. Custom extension arms are available upon request, consult factory.

Model Number	Type	
12	Rigid Extension Arm, 12" long with standard connector	
42	Flexible Extension Arm, 42" long o.a. consisting of a 12" rigid arm with a grip handle & 30" of 1/4" dia. flexible SS armor with standard connector	
12QC	Rigid Extension arm with quick change connector	
42QC	Flexible Extension Arm, 42" long o.a. consisting of a 12" rigid arm with a grip handle & 30" of 1/4" dia. flexible SS armor with quick change connector	
18AO	18" A rigid add-on arm section for model 12 & 12 QC	

PRODUCT INFORMATION

The Pyro Surface Pyrometer comes complete with carrying case, reference thermometer and manual.

Interchangeable thermocouples and extension arms are optional. When ordering specify specific model numbers.

WARRANTY

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

INTERCHANGEABLE "J" CONTACT TYPE THERMOCOUPLES

Pyro offers a wide range of industrial thermocouple styles to meet your applications. Pyro's many styles of contact thermocouples allow for contact measurement of convex, flat, rotating, soft molten materials. Special purpose thermocouples are available for immersion in liquids, gases, or for measuring air temperature. Pyro thermocouples thread securely into the Pyro Surface Pyrometer extension arms. All Pyro contact type thermocouples are interchangeable. Custom thermocouples are available upon request, consult factory.

Accuracy on "J" Style Surface Thermocouples:

32°F - 530°F ±4°F
530°F - 1200°F ±3/4%

Model 301, Band with 12" Rigid Arm

Convex Applications
5" Head Span
Maximum Temperature 500°F (260°C)
Response Time 7-10 seconds



Model 301A, Band

Convex Applications
5" Head Span
Maximum Temperature 500°F (260°C)
Response Time 7-10 seconds



Model 301B, Band

Convex Applications
3" Head Span
Maximum Temperature 500°F (260°C)
Response Time 7-10 seconds



Model 301C, Band

Convex Applications
11" Head Span
Maximum Temperature 500°F (260°C)
Response Time 7-10 seconds



Model 310, Wire Junction with Flexible Extension Arm 30" SS Armor Cable

Flat Surface Applications
1/4" Head Diameter
Maximum Temperature 1200°F (650°C)
Response Time 3 seconds



Model 302, Wire Junction

Flat Surface Applications
1/4" Head Diameter
Maximum Temperature 1200°F (650°C)
Response Time 3 seconds



Model 303, Silver Disc

Semi Flat Surface Applications
1/4" Head Diameter
Maximum Temperature 1200°F (650°C)
Response Time 5 seconds



Model 304, Prod

Billet, Molds & Sheet Applications
3/4" Tip Width x 6" Long
Maximum Temperature 1200°F (650°C)
Response Time 10 seconds



Model 305, Needle

Semi Fluids, Rubber & Plastic Applications
1/16" Diameter x 2" Long
Maximum Temperature 1200°F (650°C)
Response Time 7 seconds



Model 306, Needle

Semi Fluids, Rubber & Plastic Applications
1/8" Diameter x 6" Long
Maximum Temperature 1200°F (650°C)
Response Time 7 seconds



Model 315, Needle

Semi Fluids, Rubber & Plastic Applications
1/8" Diameter x 2" Long
Maximum Temperature 1200°F (650°C)
Response Time 7 seconds



Model 307, Bare Wire

Furnaces, Oils & Dirty Fluid Applications
Two 1/16" Diameter Wires x 6" Long
Maximum Temperature 1200°F (650°C)
Response Time 5 seconds



Model 308, Protected Tube

Corrosive Liquid Applications
1/4" Diameter x 6" Long
Maximum Temperature 1200°F (650°C)
Response Time 7 seconds



Model 309-A, Leaf Type

Press & Platen Applications
0.010" Thick x 6" Long
Maximum Temperature 1200°F (650°C)
Response Time 5 seconds



Model 316, Air Type

Oven Applications
1/4" Diameter x 6" Long
Maximum Temperature 1000°F (538°C)
Response Time 3 seconds



Model SP49A, Spring Prod

Sheet & Billet Applications
12" Rigid Handle, 5.0' Flexible SS Armor Cable
Maximum Temperature 1200°F (650°C)
Response Time 10 seconds
Note: Standard Thermocouple Connector



Model SP49B, Spring Prod

Sheet & Billet Applications
12" Rigid Handle, 30" Flexible SS Armor Cable
Maximum Temperature 1200°F (650°C)
Response Time 10 seconds



Model SP49C, Spring Prod

Sheet & Billet Applications
Direct Connect 12" Rigid Handle
Maximum Temperature 1200°F (650°C)
Response Time 10 seconds



PYRO'S AUTHORIZED REPRESENTATIVE: