

# 392 High Performance Platinum RTD Thermometer System

## Exceptional Accuracy and Long-Term Stability in a Versatile Meter System with Interchangeable Probes

- 392HPF Meter Range: -290 to 1450°F
- 392HPC Meter Range: -180 to 788°C
- 392HPD Dual Scale Meter Range: -290 to 1450°F (-180 to 788°C)
- Meter Accuracy  $\pm 0.1^\circ\text{F}/^\circ\text{C}$  at 32°F (0°C)
- System Accuracy  $\pm 0.25\%$  of reading (392HP Meter & 202HP Immersion Probe)
- Complete tracing of the platinum standard DIN 43760 to 0.1°F conformity over the entire temperature range
- Readings updated 2.5 times per second
- Bright 0.33" high-visibility LED display
- Maxi-Temp® holds peak temperature reading
- Tough, drop tested meter assembly
- Interchangeable, 4-wire snap-in connection HP Series probes
- Automatic compensation for probe calibration of temperature at ice point and alpha
- Noise suppression circuit
- NIST traceable conforming to ITS-90

Wahl invented the portable Platinum-RTD Thermometer (Pat. No. 4,050,309) to provide exceptional accuracy and conformity in laboratory and industrial applications. The 392HP Meter/Probe System represents the ultimate in Heat-Prober System Performance.

Thousands of 392HP Heat-Probers are used by various industries, making critical temperature measurements as well as calibrating sensors and other instruments.

Use the 392HP system to calibrate installed sensors, to make quality assurance tests and to make highly accurate process temperature measurements. An internal feedback loop maintains system calibration during use. And you can order additional HP probes at any time without calibration.

The 392HP features a special noise rejection program for use near high EMF machines.

See pages 6-7 for complete meter specifications, options, accessories, and money saving kits.

See pages 8-9 for Platinum RTD Probe listings.



392HP Meter is FM (Factory Mutual) approved for potentially explosive environments.

Class I & II Div. 1, Groups D, F & G.

The performance of our meters is warranted for three years against defects in parts and workmanship.

APPLICATIONS
• Petrochemical
• Food
• Photographic
• Aerospace
• Electronics
• Nuclear Power



392HPC Meter



392HP Probe Connector

### 5-POINT NIST TRACEABLE RTD CALIBRATORS

Assures System Reliability Before Every Measurement

**CAL392HP-HT** High Temperature Calibrator for 392HP only, NIST Certificate included

**Calibration Points:** -58°F, 32°F, 212°F, 284°F, 752°F  
-50°C, 0°C, 100°C, 140°C, 400°C

**CAL392HP-LT** Low Temperature Calibrator for 392HP only  
Ice Point to Boil

**Calibration Points:** 32°F, 68°F, 104°F, 140°F, 212°F  
0°C, 20°C, 40°C, 60°C, 100°C

**10786-NIST** Certificate of NIST Traceability with Test Data.

To request *Custom Calibrators* with special calibration points, please contact Customer Service.



Application Example with 392MF Meter with optional 5-point Calibrator, CAL392-HT

Calibration Services Available

# 392 Series Platinum RTD Thermometer Systems

## 392 Precision Systems Offer Wide Temperature Range and Meter Options



392EXC Meter

**Model 392M** features a bright .33" high red LED display for normal to low lighting conditions. It operates on a rechargeable NiCad battery pack. Includes battery recharger and AC line adapter.

**Model 392MX** features a 0.4" high red LCD for normal to bright lighting conditions and operates on a rechargeable NiCad battery pack. Includes battery recharger and AC line adapter.

**Model 392VX** features a .4" high red LCD for normal to bright lighting conditions and is powered by a 9-volt alkaline battery for 50 hours continuous use making it an excellent choice for field tests.

**-S Models** are FM approved for additional groups, see specifications on page 6.

Use **F, C, or D** Model No. suffix to designate Fahrenheit, Celsius, or Dual Range °F/°C Switchable.

See pages 6-7 for complete meter specifications, options, accessories, and money saving kits.

See pages 8-9 for Platinum RTD Probe listings.

- 392MF Meter Range -60 to 752°F
- 392MC Meter Range -51.1 to 400°C
- 392MD Dual Scale Meter Range -60 to 752°F (-51.1 to 400°C)
- Meter options for display type and power source
- Meter accuracy of  $\pm 0.1^\circ\text{F}/\text{C}$   $\pm 1$  digit at 32°F (0°C)
- System accuracy  $\pm 0.5\%$  of reading (Meter & 202 Immersion Probe)
- Large LED or LCD display for indoor or outdoor readings
- Interchangeable Platinum RTD probes
- Peak Hold and Auto-Ranging display features.
- Interchangeable probes compensated for calibration at ice point
- NIST traceable conforming to ITS-90

A precision, microprocessor driven meter is the heart of a complete, portable and rugged Heat-Prober temperature measurement system. Using **392 Meters**, engineers in maintenance, quality assurance, energy conservation and process control can now have laboratory accuracy anywhere in the plant, laboratory, or field.

The **392** system gives you outstanding accuracy with a choice of interchangeable probes for measuring surfaces, liquids, semi-solids and gases. Interchangeable 3-wire, snap-in connection Platinum-RTD probes are shown on pages 8 and 9. In addition, 392 Meter/Probe Systems are ideal for use as an in-house calibration standard for less accurate thermometers and to calibrate installed thermowells.

For complete portability and ease of use, Wahl Heat-Prober Meters are battery powered. The **392 Series** are supplied with rechargeable batteries that allow 8 hours continuous operation. The supplied recharger allows these meters to be used as a continuously operating bench unit. For field backup, a spare rechargeable battery pack (page 6) may be purchased.

### 5-POINT NIST TRACEABLE RTD CALIBRATORS



Platinum RTD Meter 392MF shown with 5-point calibrator CAL392-HT

All 392 Series Meters assure laboratory accuracy in the field when used in conjunction with the NIST traceable Calibrator CAL392.

*Assures System Reliability Before Every Measurement*

**CAL392-HT** High Temperature Calibrator, NIST Certificate included

**Calibration Points:**

- 58°F, 32°F, 212°F, 284°F, 752°F
- 50°C, 0°C, 100°C, 140°C, 400°C

**CAL392-LT** Low Temperature Calibrator

**Calibration Points:**

- 32°F, 68°F, 104°F, 140°F, 212°F
- 0°C, 20°C, 40°C, 60°C, 100°C

10786-NIST Certificate of NIST Traceability with Test Data.



Calibration Services Available



# RTD Meter Specifications

See our New TM612 RTD Thermometer, and TM630 Thermocouple and RTD Thermometer featured on page 3.

## 392 SERIES RTD METER SPECIFICATIONS

Model	392HP	392M 392MX	392M-S 392MX-S	392VX
Range	-290 to 1450°F -180 to 788°C	-60 to 752°F -51 to 400°C		-60 to 752°F -51 to 400°C
Digital Display	Bright 0.33" LED	392M/392M-S Bright 0.33" high LED		Red, 0.4" high LCD
		392MX/392MX-S Red, 0.4" high LCD		
Resolution	0.1° below 375°F (190°C). Auto Ranges to 1° above 375°F (190°C).			
Meter Accuracy at 77°F	±0.1°F/C ±1 digit at 32°F (0°C)			
System Accuracy (Meter with 202 immersion probe)	±0.1°F ±1 digit at ice point, ±0.25% reading thereafter	±0.3°F at ice point, ±0.5% reading thereafter		
Repeatability	±0.2°F			
Peak Hold	Microcomputer calculated, switch to "P" to activate			
Ambient Operating Range	0 to 130°F (-18 to +55°C)			
Temperature Coefficient	0.01 deg/deg over ambient range			
FM (Factory Mutual) Approved*	Class I & II, Div. 1, Groups: D, F, & G	Class I & II, Div. 1, Groups: D, F, & G	Class I & II, Div. 1, Groups: C, D, E, F, & G	Not Available
Power	11681-1 6.25 V NiCad Battery	11681-1 6.25 V NiCad Battery	11681-2 6.25 V NiCad Battery	9V Alkaline battery (NEDA 1604A)
Battery Life	4.5 hours. per charge	392M/392M-S 10 hours per charge		50 hours. per charge
		392MX/392MX-S 50 hours per charge		
Low Battery Indicator	Yes			
Noise Rejection	Greater than 40 dB at 60 Hz increasing at 20 dB per decade. Spurious noise attenuated by internal 16 Hz filter. 392HP includes special noise rejection program for use in presence of rampant EMF such as spark ignition engines.			
Size	3" W x 6" L x 1.5" D (7.5 cm x 15 cm x 3.75cm)			
Weight	12 oz. (340grams)	12 oz. (340grams)		7 oz. (198grams)
* FM Approval Groups: C (Ethylene Gas), D (Methane, Propane), E (Metal Dust), F (Coal Dust), and G (Grain Dust)				
All 392 Models Available in °F, °C, or Dual Scale, add "F", "C" or "D" to Model Number. Dual Scale not available on -S Models.				

## 392 SERIES METER ACCESSORIES

DA-4	Silicone Paste	MA-150	Battery Recharger, 120V AC 50/60Hz
DA-6	Belt-Clip Meter Case with Hand Strap	MA-150E	Battery Recharger, 220V AC 50/60Hz, European
DA-10	Nylon Safety Wrist Strap	11681-1	Spare NiCad Battery Pack
DA-60	Shock-Proof Attache-Style Instrument Case	11681-2	Spare NiCad Pack for -S Models
		12232	Standard 9V Alkaline Battery

## METER OPTIONS

392NIST	Certificate with 3 Standard Calibration Points between 32°F (0°C) & 500°F (250°C) Meter calibration includes one probe.	392NIST-1	Certificate with 3 User-specified Calibration Points between -40°F (-40°C) & 600°F (315°C) Meter calibration includes one probe.
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