

## **NEW** Hart Scientific Intrinsically Safe Reference Thermometer

- Certified to ATEX Directive—EX II 2G EEx ib IIB T4 Rating
- System Accuracy to  $\pm 0.05^{\circ}\text{C}$  (readout and probe!)
- Battery Powered
- Dual Channel with Differential Measurement

We get many requests every year from our customers for an intrinsically safe reference thermometer for use in hazardous areas. Up to now, there have been very few intrinsically safe thermometers available—and certainly no reference-grade thermometers.

The 5577 is an intrinsically safe, reference-grade thermometer, that combines an ATEX IS rating with high accuracy ( $\pm 0.05^{\circ}\text{C}$  over the entire range  $-100^{\circ}\text{C}$  to  $135^{\circ}\text{C}$ ) for the readout and probe together. It doesn't get any better than this!

So how do we achieve such high performance? The 5577 uses Pt100 probes and a calibration procedure that uses system calibration data to marry the probe and the readout, which ensures high-accuracy measurements across a complete temperature range. System calibrations—done by Hart—are NIST-traceable and NVLAP-accredited.

The 5577 can be used with one or two probes and will display both measurement channels simultaneously along with their difference. Several probe designs are available depending on what process you're measuring. An optional convenient carrying-case provides storage for one readout and up to two probes.

Since the 5577 is battery powered, the thermometer is lightweight and extremely portable—perfect for measurements in those hard-to-get-to places out on the pipeline. A standard IS-rated 9V "D" cell powers the thermometer for up to 20 hours.



Temperature Test Instruments

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### Specifications

Temperature Range	$-100^{\circ}\text{C}$ to $135^{\circ}\text{C}$
System Accuracy	
(calibration plus repeatability)	$\pm 0.05^{\circ}\text{C}$
Drift (1 year)	$\pm 0.05^{\circ}\text{C}$ (assumes proper handling of probes)
Resolution	$0.01^{\circ}$
Sensor Type	Pt100, 4-wire, DIN '385' Alpha
Communications	RS-232 (not for use within hazardous environments)
Power Supply	9V IS-rated battery
Battery Life	20 hours
Display	2-line LCD
Operating Range	$0^{\circ}\text{C}$ to $40^{\circ}\text{C}$
IS Rating	EX II 2G EEx ib IIB T4 rating; Certified by CENELEC to European ATEX directive
Dimensions	8" H x 3.5" W x 1.5" D (20 x 8.5 x 4 cm)
Weight	0.7 lb. (0.3 kg)
Calibration	NIST-traceable, NVLAP accredited system cal from Hart with data

CENELEC IS Markings	
EX	EC Examination Mark
II	ATEX Gas Groups – Group II is for gases in non-mining industries
2G	ATEX Zones – 2G identifies zones in which an explosive gas/air mixture is likely to be present
EEx	European Mark for Explosion Protected
ib	Explosion Protection Type and Zones – ib indicates intrinsic safety in zones in which an explosive gas/air mixture is at least likely to be present
IIB	Explosive Gas Groups – IIB is for atmospheres containing ethylene or gases of an equivalent hazard
T4	Temperature Classification – T4 has an upper temperature limit to $135^{\circ}\text{C}$

### Ordering Information

Order #	Mfg #	Description	Price
MPHT5577	5577	Handheld IS-Rated Thermometer Readout, P655-EX	
MPHT5315-001	5315-001	Immersion Probe*, $-100^{\circ}\text{C}$ to $135^{\circ}\text{C}$ , 150 x 3 mm	
MPHT5315-002	5315-002	Immersion Probe*, $-100^{\circ}\text{C}$ to $135^{\circ}\text{C}$ , 300 x 3 mm	
MPHT5315-003	5315-003	Immersion Probe*, $-100^{\circ}\text{C}$ to $135^{\circ}\text{C}$ , 300 x 6 mm	
MPHT5315-005	5315-005	IS-Approved Spare Battery	
MPHT9326	9326	Carrying Case (fits 5577 and two 300 mm probes)	

Note: Each purchased probe must be system calibrated with its 5577 to achieve specified accuracy

## AEMC Thermometers

- Easy One-Hand Operation
- K thermocouple(s) Included (Models CA861 and CA863)
- Accurate RTD Sensor (Model CA865)
- Measures Temperature in °F and °C
- 0.1° Resolution
- Display Backlight
- Lightweight and Compact
- MAX and HOLD Functions
- Includes Protective Safety Holster

### Specifications and Ordering Information

Mfg#	2121.26 (CA861)	2121.27 (CA863)	2121.28 (CA865)
Input	K thermocouple	Dual K thermocouple	—
Temperature Scale	Fahrenheit or Celsius user-selectable	Fahrenheit or Celsius user-selectable	Fahrenheit or Celsius user-selectable
Measurement Range	-40° to 1999°F or -40° to 1350°C	-58° to 1999°F or -50° to 1300°C	-58° to 199.9°F or -50° to 199.9°C
Dimensions	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)		
Weight Approx.	6.5 oz (185g) including battery	Approx. 6.4 oz (181g) including battery	Approx. 6.2 oz (175g) including battery
Order #	MP2121.26	MP2121.27	MP2121.28
Price			

CA865 ▶



## AEMC Infrared Thermometers

- Easy One-Hand Operation
- Non-Contact Infrared Sensor
- Laser for Precise Aim (Models CA876 and CA872)
- Measures in °F and °C
- High 1022°F (550°C) Measurement (Model CA876)
- Fixed 0.95 Emissivity (Models CA872 and CA870)
- Adjustable Emissivity 0.1 to 1.00 (Model CA876)
- Auto-Hold Function
- Backlight
- Lightweight and Compact
- Includes Protective Safety Holster

### Specifications and Ordering Information

Mfg#	2121.30 (CA870)	2121.31 (CA872)	2121.34 (CA876)
Temperature Range	-4° to 500°F or -20° to 260°C	-4° to 500°F or -20° to 260°C	-4° to 1022°F or -20° to 550°C
Temperature Range	—	—	-40° to 2000°F or -40° to 1350°C
Dimensions	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)		
Weight	Approx. 6.5 oz (183g) including battery	Approx. 6.5 oz (183g) including battery	Approx. 9 oz (255g) including battery
Order #	MP2121.30	MP2121.31	MPC2121.34
Price			

CA876 ▶



## AEMC Thermo-Hygrometer

- Easy One-Hand Operation
- Measures Temperature in °F and °C
- Accurate RTD Sensor
- Quick Response RH Sensor
- 2000-count LCD Display
- Display Backlight
- Lightweight and Compact
- MAX and HOLD Functions
- Includes Protective Safety Holster

### Specifications and Ordering Information

Mfg#	2121.24 (CA846)
Measurements — Temperature	
Measurement Range	-4° to 140°F or -20° to 60°C
Measurements — Relative Humidity	
Measurement Range	0% to 100% RH
Dimensions	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)
Weight	Approx 6.2 oz (175g) including battery
Order #	MP2121.24
Price	

CA846 ▶



Temperature Test Instruments

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## Fluke Digital Contact Thermometers

The new Fluke 50 Series II contact thermometers offer fast response and laboratory accuracy (0.05% + 0.3°C) in a rugged, handheld test tool

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### Fluke 51 Series II and 52 Series II product features:

- Large, Bright, Backlit Dual Display
- MIN, MAX, and AVG with Relative Time Clock
- Easy to Set Up and Operate
- Battery Life Typical 1000-Hour
- Readout in °C, °F, or Kelvin (K)
- Rugged Splash and Dust Resistant Case
- Optional ToolPak™
- Three-Year Warranty
- Measures J, K, T, and E-Types Thermocouples

### The Fluke 53 Series II and 54 Series II include all the features listed above plus:

- Data Logging Up to 500 Points of Data with User-Adjustable Recording Interval
- Additional Thermocouple Types R, S, and N
- Real-Time Clock Captures the Exact Time of Day When Events Occur
- Recall Function Allows Logged Data to Be Easily Reviewed on the Meter Display
- IR Communication Port Allows Data to Be Exported to Optional FlukeView® Temperature PC Software for Further Analysis and Graphing

\* Models 51, and 53 include one beaded probe

\* Models 52, and 54 include two beaded probes



### Specifications and Ordering Information

Mfg #	54-2	53-2	52-2	51-2
Thermocouple Types:	J, K, T, E, N, R, S	J, K, T, E, N, R, S	J, K, T, E	J, K, T, E
Number of Inputs:	Dual	Single	Dual	Single
Time Stamp:	Time of Day	Time of Day	Relative Time	Relative Time
Rugged Design with Holster:	X	X	X	X
Splash and Dust Resistant:	X	X	X	X
Dual Display with Bright Backlight:	X	X	X	X
MIN/MAX/AVG Recording:	X	X	X	X
(T1-T2) True Differential:	X		X	
Data Logging Up to 500 Points:	X	X		
IR Data Port for PC Interface:	X	X		
Optional FlukeView Software:	X	X		
Warranty:	3 years	3 years	3 years	3 years
Order #	MP54-2T	MP53-2T	MP52-2T	MP51-2T
Price:				

### Accessories

Order #	Description	Price
MPFVF-SC1	FlukeView® Forms Software Plus Optical Cable for Model 53 and 54	
MPTPAK80-4	ToolPak™ Includes Magnet and Strap Hangers for Models 51, 52, 53, and 54	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

### Temperature Probe Accessories

Model #	Probe Type	TC Type	Price
MP80PK-1	Bead Probe (included)	K	
MP80PK-2A	Immersion Probe	K	
MP80PK-3A	Surface Probe	K	
MP80PK-4A	Air Probe	K	
MP80PK-5A	Piercing Probe	K	
MP80PK-6A	Exposed Probe	K	
MP80PK-7	Industrial Surface Probe	K	
MP80PK-8	Pipe Clamp Probe	K	
MP80PK-9	Lance Tip Probe	K	
MP80PK-EXT	Thermocouple Extension Kit	K	
MP80PJ-1	Bead Probe	J	
MP80PJ-9	Lance Tip Probe	J	
MP80PJ-EXT	Thermocouple Extension Kit	J	
MP80PT-5A	Piercing Probe	T	
MP80PT-EXT	Thermocouple Extension Kit	T	



Hang your Fluke 51, 52, 53 & 54 thermometer by a magnet or strap hanger with optional ToolPak™ accessory

## YSI Precision Thermistor Thermometers

Temperature Test Instruments

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- Resolution Up to 0.01°C or °F
- System Accuracy of Either ±0.115°C or ±0.05°C
- RS-232-C Communications Port
- Min/Max Hold and ΔT

These precision 4½-digit thermistor thermometers are available in two versions which address a broad range of temperature measurement applications. It is ideal in industries such as food processing, pharmaceutical, and pulp/paper, where process control validation is key to product quality; power generation facilities for monitoring temperatures throughout the plant; and high-tech electronics and independent testing labs which need secondary temperature standards for quality improvement programs.

The 22391T is a general purpose, highly accurate digital thermometer using off-the-shelf interchangeable probes. Ideal for applications where system accuracy and flexibility are important. System uncertainty is ±0.121°C at 100°C. This thermometer is compatible with over 20 different probes, with the six most popular listed. Please call Transcat for additional probes.

The 22392T offers higher system accuracy by combining the thermometer with highly accurate interchangeable probes. The probes are designed and calibrated for use specifically with this thermometer. This unit has a narrower temperature range with system accuracy of ±0.1°C at 70°C. To maintain the specified accuracy, calibration of the probes for the 22392T is recommended every six months.

**Each Unit Includes:** 9V alkaline battery and instructions.



### Specifications

Mfg#	22391T	22392T
Range:	-40 to 150°C	0 to 70°C
System Accuracy: (thermometer & probe)	±0.225°C @ -40°C; ±0.115°C @ 0 to 50°C; ±0.125°C @ 70°C; ±0.121°C @ 100°C; ±0.720°C @ 150°C	±0.05°C @ 20 to 50°C; ±0.1°C @ 0°C; ±0.1°C @ 70°C
Resolution:	From -40°C to 102°C: 0.01°C	
Repeatability:	0.0002°C to 0.01°C (-20°C to +100°C)	
Size/Weight:	8.25 x 4.0 x 1.5" HWD/12 oz	

### Ordering Information

Order #	Mfg #	Description	Price
MP22391T	4600	Precision Thermometer	
MP22392T	4610	Maximum Precision Thermometer	
MP22391T-1	401	Vinyl Tip General Purpose Probe for 22391T	
MP22391T-2	402	Small Vinyl Tip General Purpose Probe for 22391T	
MP22391T-3	406	Stainless Steel Tubular Probe for 22391T	
MP22391T-4	405	Air Temperature Probe for 22391T	
MP22391T-5	409A	High Temperature Surface Probe for 22391T	
MP22391T-6	427	Small Surface Probe for 22391T	
MP22392T-1	4611	1 mm Flexible General Purpose Probe for 22392T	
MP22392T-2	4612	Small Flexible General Purpose Probe for 22392T	
MP22393T	4652	Carrying Case	
MP22394T	4661	Battery Eliminator, 110V	

Transcat Accredited Calibration with Data

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## Ashcroft RTD Thermometer

### Precision RTD Thermometer

- Switchable °F and °C Temperature
- Total Unit Accuracy—Instrument and Probe Combined Maximum  $\pm 0.5^{\circ}\text{F}$  or  $\pm 0.3^{\circ}\text{C}$
- Four-Point Calibration Certificate
- Dust-Tight and Water Submersible
- Ten-Year Lithium Battery Life

**Each Unit Includes:** Thermometer of choice, probe, and instructions.

**NOTE:** Extension cables do not work with 392SKW, 492SKW or 592 Series.

**NOTE:** Cables are not interchangeable nor can they be substituted or replaced.

**NOTE:** Batteries must be replaced by the Factory.

### Specifications

<b>Temperature Ranges</b> (Switchable):	
Series ATFX392 (Pt1000):	-60°F through 570°F/-50°C through 300°C
Series ATFX492 (Pt1000):	-60°F through 750°F/-50°C through 400°C
Series ATFX592 (Pt100):	-150°F through 900°F/-100°C through 500°C
Accuracy Including Probe:	$\pm 0.5^{\circ}\text{F}$ ( $\pm 0.3^{\circ}\text{C}$ )
Resolution:	0.1°F and 0.1°C
Battery Type:	Lithium 3.6V
Case Size:	4.3 x 2.1 x 0.8" HWD

### Ordering Information

Thermometer with SS Blunt Probe	MPATFX392	MPATFX492	MPATFX592
Thermometer with SS Pointed Probe	MPATFX392S	MPATFX492S	MPATFX592S
Thermometer with SS Probe w/Glass Sheath	MPATFX392GL	MPATFX492GL	MPATFX592GL
Thermometer with SS Penetration Probe/Cable	MPATFX392SKW	MPATFX492SKW	—

## ThermoProbe Precision Thermometer

The TL-1 series incorporates the simplicity and reliability of glass thermometry with an easy-reading digital display. It's accurate, repeatable, and highly stable like a mercury-in-glass thermometer—but eliminates the risk of contamination from breakage and the problem of mercury separation.

- Range  $-44$  to  $+600^{\circ}\text{F}$ / $-43$  to  $+315^{\circ}\text{C}$ , 0.1° Resolution; Nominal Accuracy  $\pm 0.2^{\circ}\text{F}$  Below  $250^{\circ}\text{F}$ ,  $\pm 0.5^{\circ}\text{F}$  Above  $250^{\circ}\text{F}$
- 1000Ω Class A Pt RTD Sensor with 1/4"-Diameter Stainless-Steel Sheath for Durability, 1/8"-Diameter Sensing Tip for Fast Response
- Encoded Calibration Unaffected by Temperature, Vibration, or Battery Removal
- LCD has 0.25" Characters, Switchable °C/°F Display, and Low-Battery and Fault Indication
- Electronics and Display Housed in Anodized Aluminum Enclosure with Sealed Switch, Unit Powered Via 3V Lithium Coin-Type Battery



**UT109—designed for lab or field use**

### Ordering Information

<b>Order #</b>	<b>Mfg #</b>	<b>Description</b>	<b>Price</b>
MPUT109	UT109	Precision Thermometer, 8" Stem	
MPPTLHOLS	PTLHOLS	Holster Case for TL-1T-8	
MPUT140	UT140	Precision Thermometer, 9" Stem*	

\*For any other length from 9" to 40" specify when ordering. Price is the same.



**ATFX392SKW**

**ATFX392**

### Accessories

<b>Order #</b>	<b>Mfg #</b>	<b>Description</b>	<b>Price</b>
MPAFX10	AFX10	Wall Mounting Bracket	
MPAEB10L	AEB10L	Leather Case	
MPAEB60	AEB60	1M Teflon Extension Cable	
MPAEB62	AEB62	5M Teflon Extension Cable	

Transcat Accredited Calibration with Data	CALL
Transcat Accredited Calibration without Data	CALL

## Barnant ThermoLogR RTD/Thermistor Thermometers

- Accuracy of  $\pm 0.06^{\circ}\text{F}$
- 3 Year Warranty
- Log Up to 1,000 Readings in Real Time
- Transfer Data to an Infrared Printer or to Your Computer via the Optional Infrared RS-232 Adapter
- CAL Button Enables You to Field Calibrate the Meter
- Simultaneously Monitor Current, Minimum, and Maximum Readings
- Rugged ABS Plastic Case and Sealed Silicone Membrane Keypad for an IP54 Rating
- Optional Infrared Printer is Ideal for On-Site Documentation. Transfer Data Using Infrared Light Without the Use of Cables
- Optional RS-232 Interface Connects to Your Computer's 9-Pin Serial Port for Easy Uploading of Data



Intrinsically Safe

WD-600100-85

**Each Unit Includes:** Two AA alkaline batteries and instructions.

### Specifications

	600-1085 (RTD)	600-1075 (Thermistor)
<b>Range:</b>	-330 to 2210°F (-201 to 1210°C)	YSI 400 Series Probes -40 to 302°F (-40 to 150°C) YSI 700 Series Probes -40 to 212°F (-40 to 100°C)
<b>Accuracy:</b>	$\pm 0.06^{\circ}\text{F}$ ( $\pm 0.03^{\circ}\text{C}$ )	
<b>Resolution:</b>	0.01° from -99.99 to +99.99°F/C 0.1° from -100.0 to -300°F/C and 100.0 to 999.9°F/C 1° above 1000°F/C	0.01° or 0.1° autoranging to 0.1° above 99.99°F/C
<b>Probe Connection:</b>	3-Pin (round); 100Ω Platinum RTD	1/8" phone jack; YSI 400 or 700 series

### Ordering Information

Order #	Mfg #	Description	Price
MP600-1085	WD-60010-85	Hand-Held ThermoLogR RTD Thermometer	
MP600-1075	WD-60010-75	Hand-Held ThermoLogR Thermistor Thermometer	
MP600-0070	WD91100-52	Adapter, 115 VAC	
MP600-0075	WD91100-55	Adapter, 230 VAC	
MP611-0090	WD-91100-90	Carrying Case	
MP600-0080	WD-10374-50	Infrared Printer	
MP37455-82		Replacement Paper – Pack of 6 Rolls	
MP600-0092	WD-91100-85	RS-232 Interface Adapter	

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## Cooper Instrument Industrial Temperature Tester

- -40 to 300°F (-40 to 150°C) Range
- 0.1°F/°C Resolution
- Min/Max Recall
- Intrinsically Safe Version Available

This thermistor digital temperature indicator provides fast, accurate readings of surface temperatures, liquids and gases in as little as two seconds. Temperatures from -40 to 300°F (-40 to 150°C) are measured by simply placing the thermistor probe tip in contact with the material to be tested. Readings are °F/°C switchable, with 0.1° resolution. The indicator is housed in a high-impact case that provides storage for the probe and its cord. The TM99A also features memory functions, recall of high and low temperatures and hold current temperature reading.

**Each Unit Includes:** 9V alkaline battery, general purpose probe, carrying case, and instructions

### Specifications

<b>Range:</b>	-40 to 300°F (-40 to 150°C)
<b>Accuracy:</b>	$\pm 0.3^{\circ}\text{F}$ ( $\pm 0.2^{\circ}\text{C}$ ) or $\pm 0.5\%$ of reading, whichever is greater
<b>Resolution:</b>	0.1°F/°C
<b>Display:</b>	4-digit, 0.5" Backlit LCD
<b>Size/Weight:</b>	7 x 3 x 1" HWD / 11.3 ozs

### Ordering Information

Order #	Mfg #	Description	Price
MPTM99A	TM99A	Industrial Temperature Tester	
MPTM99A-IS	TM99A-UL-E	Intrinsically Safe Industrial Temperature Tester	
MP6940T	TC100A-E	Industrial Temperature Tester, Rechargeable	
MP3244T	1075	Replacement General Purpose Probe	



TM99A-UL-E