

PRECISION MEASUREMENT INSTRUMENTS

**technICAL**  
 eXpanding possibilities  
 866-327-8731  
 www.technICAL-sys.com



**Microohmmeters**

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Be Certain with TEGAM!

IMPROVING MEASUREMENTS

## Is your measurement important?

At TEGAM, we think it is. We are committed to improving your measurement task by:

- Lower Uncertainties
- Better Accuracies
- Faster Readings
- Responsive Support

Contact TEGAM today and put us to the test on your biggest instrumentation or measurement challenge.

## Digitize Higher Voltages

DC-100 MHz PXI Instrumentation Amplifier

MODEL 4040B

- 100 V Differential Input
- 1 M/50 Ohm Inputs
- Programmable Attenuation/Gain/Offset/Filters
- Low Noise Performance



## Unequaled at Low Resistance

High-Speed, Precise Programmable Microohmmeter

MODEL 1750

- Range – 2 mΩ to 20 MΩ
- Accuracy – 0.02%
- Resolution – 100 nΩ
- Offset Compensated Ohms
- Fast measurement speed (10 ms)
- Programmable reference currents
- GPIB, RS-232C and PLC compatibility
- Easy to operate and easy to integrate



## Low Current for Sensitive Test Samples

High Speed Microhm Resistance Meter

MODEL 1740

- Range – 20 mΩ to 20 MΩ
- Accuracy – 0.02%
- Resolution – 1 μΩ
- Measurement Speed – 10 ms
- Programmable reference currents
- GPIB, RS-232 (Model 1740/GPIB) and PLC compatibility
- Kelvin Klips, Spade Lugs or Kelvin Probes available
- Easy to operate and easy to integrate
- 1 year warranty



# Increase the Operating Range of Waveform Generators and DAC Boards

## High Voltage Precision Power Amplifiers

MODELS 2340 / 2350

- Single and Dual Channel
- 400 V pk-pk
- 40 mA
- DC-2 MHz Bandwidth
- 250 V/ $\mu$ s Slew Rate
- Driver for Micro-Mirrors, MEMS, Piezo-Elements and Advanced Electrophoresis

### Model 2350



Model 2340

## High Current Precision Power Amplifier

MODEL 2348

- Precision Power Amplifier
- 50 V pk-pk
- 750 mA
- DC-2 MHz Bandwidth
- 200 V/ $\mu$ s Slew Rate
- Medical Device Testing, Semiconductor Manufacturing, Pulse Amplifier



## Lowest Price Bond Meter

### Microohmmeter and Bond Tester

MODELS R1L-B, R1L-BR

- Rugged: MIL-PRF-28800F Class 3 (R1L-BR)
- Low Price: (R1L-B)
- Portable: Long Rechargeable Battery Life
- Ranges: 2 m $\Omega$  to 20  $\Omega$
- Accuracy: 0.25% of reading
- Resolution: 1  $\mu\Omega$
- Simple Operation
- NSN 6625-01-350-8774



Model R1L-B

## Specifically Designed for Helicopter Maintenance

### Microohmmeter and Bond Tester

MODEL R1L-BR1

- Rugged: MIL-PRF-28800F Class 3
- Portable: Long Rechargeable Battery Life
- Ranges: 2 m $\Omega$  to 20  $\Omega$
- Accuracy: 0.25% of reading
- Resolution: 1  $\mu\Omega$
- Simple Operation
- Expanded probe storage space
- NSN 6625-01-625-1970





**Heaviest Duty Rating for Extreme Environments**  
Ground Resistance Test System

MODEL R1L-C

- Rugged: MIL-PRF-28800F Class 2
- Simple: One Button Test, Auto Range
- Ranges: 2  $\Omega$  to 20 k $\Omega$  (Auto and Manual)
- Accuracy: 1% of reading on 2  $\Omega$  range
- Resolution: 1 m $\Omega$
- 2, 3 or 4 point measurements
- Offset Compensation
- Complete Accessory Kit Including SS Ground Rods
- NSN 6625-01-377-6166



Model R1L-C

**INCLUDED**  
Complete R1L-C  
Accessory Kit

**The ONLY Bond Meter with Worldwide Approval**  
Intrinsically Safe Microohmmeter and Bond Tester

MODEL R1L-E2A

- Rugged: MIL-PRF-28800F Class 2
- ATEX Ex ia IIA T4 Ga
- C-UL-US Listed Class I Div. 1, Group D
- Portable: Long Battery Life (80 hours)
- Ranges: 2 m $\Omega$  to 20  $\Omega$
- Accuracy: 0.1% of reading
- Resolution: 1  $\mu\Omega$
- Simple Operation
- Offset Compensation
- Back Lit Display
- NSN: 6625-01-527-5543



Optional  
SKP-8 Probes

**Measurements Over Long Wires**  
High Accuracy Microohmmeter and RTD Monitor

MODEL R1L-D1

- Rugged: MIL-PRF-28800F Class 3
- Portable: Longest Rechargeable Battery Life (140 hours)
- Ranges: 200 m $\Omega$  to 2 k $\Omega$  (Auto and Manual)
- High Accuracy: 0.05% of reading
- Resolution: 1  $\mu\Omega$
- 2, 3 or 4 wire measurement
- Offset Compensation
- Back Lit Display
- NSN 6625-01-456-9125



**Large Kelvin Test Lead Set**

MODEL HKC-100

Provides a solid 4-terminal connection to large components that cannot be measured with conventional Kelvin clips. It is robust in construction ensuring a firm grip. Used for connection with large bolts, cables, plates, etc. Test leads are 8 ft long. Maximum jaw opening is 1.78 in (4.5 cm).



Compatible with TEGAM R1L-B, R1L-BR, R1L-D1

**Kelvin Test Lead Set**

MODEL KTL-100

Provides a solid 4-terminal connection, required for low resistance measurements. The test leads are 7 feet long each and are terminated with dual banana plugs. The device under test (DUT) end is made of gold plated brass. Maximum jaw opening is 0.6875 in (1.75 cm).

Compatible with TEGAM  
R1L-B, R1L-BR, R1L-D1



# Versatile and Replaceable Tip Styles

## Kelvin Probe

MODEL MKP-6

Excellent for making four-wire surface resistance measurements on films and other flat metallic surfaces. The probes are marked indicating the sense pins, ensuring error-free measurement. Each probe has two spring-loaded tips that can be easily removed and replaced. Variety of probe tips available. Pin center to pin center is 0.11 in (0.28 cm).

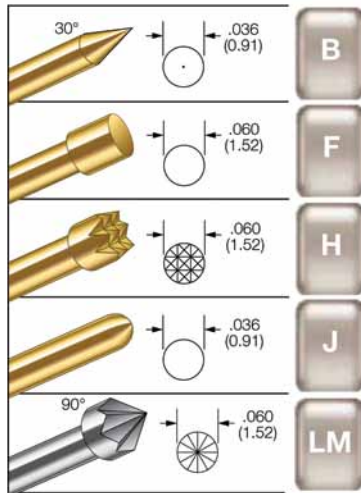
**Cable:** 6 ft. length, terminated with dual banana plugs

### Available Pin Options:

P/N MKP-B, MKP-F, MKP-H, MKP-J, MKP-LM (shown right) (4 pins per pack) (Pins not included with probe set. Please order separately.)

### Compatible with TEGAM

R1L-B, R1L-BR, R1L-BR1, R1L-D1



## 'Pistol Grip' Probes

MODEL HTP-100

Made for tough duty applications where metal components and surfaces need to be tested for "bonding". These probes are molded with impact resistant polycarbonate material. Pins are hardened stainless steel and rotate when pressed onto the DUT. Wires are 8 feet long each and are terminated in color coded spade lugs. Pin center to pin center is 0.5 in (1.27 cm).



Compatible with TEGAM R1L-B, R1L-BR, R1L-D1

## Kelvin Probe

MODEL BKP-10

Excellent for making four-wire surface resistance measurements on bonds and other metallic surfaces. Features replaceable pins for heavy duty uses. Pin center to pin center is 0.19 in (0.48 cm).

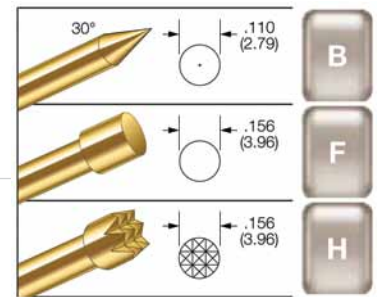
**Cable:** 10 ft. length, terminated with dual banana plugs

### Available Pin Options:

P/N BKP-B, BKP-F, and BKP-H (shown right) (4 pins per pack) (Pins not included with probe set. Please order separately.)

### Compatible with TEGAM

R1L-B, R1L-BR, R1L-BR1, R1L-D1



## Kelvin Coaxial Probe

MODEL MCP-6

Ideal for precision resistance measurements in tighter spaces. The probe has a spring-loaded center pin for voltage detection, while the outer pin provides the reference current. The probe comes with two replaceable pins installed. Outer pin diameter is 0.06 in (0.15 cm).

**Cable:** 6 ft. length, terminated with dual banana plugs

**Replaceable Pin Options:** P/N MCP-A (2 pins per pack)

Compatible with TEGAM R1L-B, R1L-BR, R1L-BR1, R1L-D1





Model PMX50

## PM Series Microwave Power Calibration System

- Supports Sensors from most major manufacturers up to 50 GHz
- Faster than direct compare method
- Lowest total uncertainty
- National Metrology Institute class thermistor reference standard
- Software Automation with MET/CAL<sup>®</sup> or SureCAL

The PM Series calibrator simplifies the tedious and complex process of RF power sensor calibration. The goal is to realize consistent, cost effective and traceable calibrations. However, the manual approach is very demanding of even the most experienced technician.

A successful calibration involves:

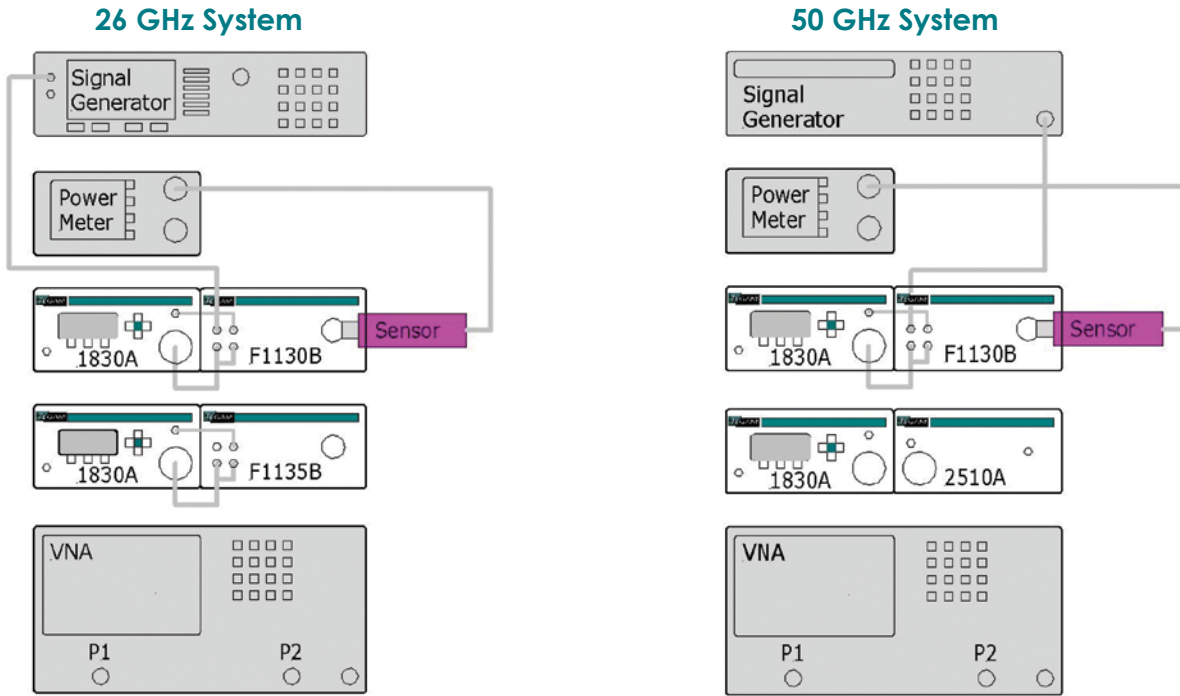
- Setting instruments
- Keeping track of standards
- Computing mismatch ( $\Gamma$ )
- Computing calibration factors ( $k$ )
- Computing total uncertainties
- Programming EPROM sensors
- Generating reports and labels

The PM Series automates and standardizes this process while providing compatibility with a wide variety of instruments and power sensors. The PM Series is built upon the 1830A metrology grade RF Power Meter. This is the only RF Power Meter on the market that is compatible with all known types of thermistor sensors including TEGAM, Agilent, Weinschel, Hughes and Millitech.

A new line of compatible RF power thermistor transfer and reference standards have also been developed that provide flexibility and expandability as your RF calibration needs grow. These standards are based on the same time proven method used by NIST, PTB, NIM and other national metrology organizations around the world.



# PM Series: The Leading RF Power Sensor Calibration System



Potential System Configurations

PM Series Package Summary											
Part Number	Description	PMX18-001	PMX18-002	PMX26-001	PMX50-001	PMX50-002	PMX50-003	PMX50-004	PMC18-001	PMC26-001	PMC50-001
<b>1830A</b>	RF Power Meter	•	•	••	•	•	••	••	•	•	•
<b>F1130B</b>	18 GHz Transfer	•	•	•			•	•			
<b>F1135B</b>	26.5 GHz Transfer			•							
<b>2510A</b>	50 GHz Transfer				•	•	•	•			
<b>M1130A</b>	18 GHz Standard								•		
<b>M1135A</b>	26.5 GHz Standard									•	
<b>1510A</b>	50 GHz Standard										•
<b>CA-7-48</b>	Cable, F/M mounts								•	•	
<b>CA-7-15</b>	Cable, F/M mounts	•	•	••			•	•			
<b>CA-10-48</b>	Cable, large heater								•	•	
<b>CA-11-48</b>	Cable, small heater										
<b>CA-11-15</b>	Cable, small heater	•	•	••			•	•			
<b>CA-21-48</b>	Cable, 15XX/25XX										•
<b>CA-21-15</b>	Cable, 15XX/25XX				•	•	•	•			
<b>CA-14-2M</b>	Cable, USB A/A 2M	•	•	••	•	•	••	••			
<b>PMX-SureCAL</b>	Automation Software	•		•	•		•				
<b>PMX-Training</b>	System Training	•		•	•		•				

# Microwave Calibration Standards

## 2.4 mm, 50GHz

MODEL 2510A

- Feedthrough design for calibrating microwave power sensors
- Provide lowest-uncertainty monitoring of RF power supplied to a Device Under Test
- 10 MHz to 50 GHz, 2.4 mm connector
- Temperature controlled for minimal response to ambient environment
- Thermistor bolometer design
- 0.01 to 25 mW power range
- Rack Mount Option available



## The Only 2.4 mm DC Substitution Power Sensor

### 2.4 mm, 50 GHz

MODEL 1510A

- Terminating Design
- Transfer calibration from NIST (or other NMI) to feedthrough standards with the lowest possible uncertainty
- 10 MHz to 50 GHz, 2.4 mm connector
- Lowest uncertainty of any available CW absolute power sensor
- Temperature controlled for minimal response to ambient environment
- Thermistor DC Substitution
- 0.01 to 25 mW power range



## 3.5 mm, 26.5 GHz

MODELS F1135B

- Provide lowest-uncertainty monitoring of RF power supplied to a Device Under Test
- 10 MHz to 26.5 GHz, 3.5 mm connector
- Temperature controlled for minimal response to ambient environment
- Thermistor DC Substitution Design
- 0.01 to 25 mW power range
- Rack Mount Option available



## 3.5 mm, 26.5 GHz

MODEL M1135A

- Can be calibrated at NIST with the lowest uncertainty of any sensor type
- Transfer calibration from NIST (or other NMI) to feedthrough standards with the lowest possible uncertainty
- 10 MHz to 26.5 GHz, 3.5 mm connector
- Lowest uncertainty of any available CW absolute power sensor
- Temperature controlled for minimal response to ambient environment
- Thermistor DC Substitution Design
- 0.01 to 25 mW power range
- Height adjustable stand available



## N, 18 GHz

MODELS F1130B

- Provide lowest-uncertainty monitoring of RF power supplied to a Device Under Test
- 100 kHz to 18 GHz, N connector
- Temperature controlled for minimal response to ambient environment
- Thermistor DC Substitution Design
- 0.01 to 25 mW power range
- Rack Mount Option available



## N, 18 GHz

MODEL M1130A

- Can be calibrated at NIST with the lowest uncertainty of any sensor type
- Transfer calibration from NIST (or other NMI) to feedthrough standards with the lowest possible uncertainty
- 100 kHz to 18 GHz, N connector
- Lowest uncertainty of any available CW absolute power sensor
- Temperature controlled for minimal response to ambient environment
- Thermistor DC Substitution Design
- 0.01 to 25 mW power range
- Height adjustable stand available





# RF Thermistor Power Meter for Metrology

MODEL 1830A

- Frequency Range: 110 GHz (sensor dependent)
- Meter Uncertainty:  $\pm 0.05\%$  of reading,  $\pm 0.5 \mu\text{W}$  (0.1% at 1 mW)
- Calibrate 50 MHz reference outputs
- Universal compatibility with DC substitution thermistor sensors
- Directly reads calibrated RF power
- NSN 6625-01-566-7703



## Temperature Regulator for Microwave Calibration Standard

MODEL 1820B

- Maintains calibration standards at operating temperature
- Improves calibration throughput
- 2 Channels
- Rack Mount Option



## Dual Type IV Power Meter

MODEL 1806A

- Traceable to primary voltage and resistance standards
- Temperature controller for TEGAM/Weinschel Mounts
- Compatible with Agilent (HP) 200 Ohm thermistor mounts and all TEGAM (Weinschel) RF Power Standards
- Internal reference voltage generator for more precise measurements
- Fault indicator illuminates when loop balance is prevented



### Highest Accuracy

#### Automated Precision Ratio Transformer

MODEL PRT-73

- Ratio Range  $-0.001$  to  $1.0009999$
- Remotely programmable via standard IEEE-488 interface
- Standard Resolution to  $0.1$  ppm
- Optional Resolution to  $0.01$  ppm
- Terminal Linearity as low as  $0.9$  ppm
- Wide bandwidth —  $10$  Hz to  $20$  kHz
- Standard  $0.35$  V/Hz,  $350$  V Max
- Optional  $2.5$  V/Hz
- Overload protection
- Front panel display for easy set up and operation



### Durable and Easy to Use

#### Decade Ratio Transformer

MODEL DT72B

- Resolution  $0.1$  ppm
- Terminal Linearity as low as  $0.9$  ppm
- Bandwidth  $50$  Hz to  $20$  kHz
- Parallel switches reduce contact resistance
- Switch Resistors virtually eliminate switch transients
- Ratio range from  $-0.0111111$  to  $+1.1111110$



### Highest Accuracy

#### Decade Synchro / Resolver Standards and Bridges

MODELS DSRB-5CDA-4 / DSRB-5DA

- Resolution  $0.0001$  degree
- Range  $0$  to  $360$  degrees
- Accuracy of at least  $4$  seconds of arc
- Frequency  $400$  Hz
- Direct readout in degrees
- Switches good for  $100,000$  turns



### Lowest Cost

#### Ratio Transformer

MODEL RT-60B

- Resolution:  $10$  PPM
- Linearity:  $0.001\%$
- Bandwidth:  $50$  Hz to  $10$  kHz
- Ratio Range:  $0$  to  $+1.1111$
- Compact
- Lowest Cost



## SUPERIOR CUSTOMER SERVICE



**800-666-1010**

Live representatives are available to assist you with:



- Equipment Demos
- Quotations and Sales
- Repair
- Calibration

### Motor Rotation Indicator

MODEL MR-1A

- No need to disconnect drive shaft couplings
- Protects user and equipment
- Identifies open windings
- Reliable, solid state components
- Test clips open ½ in to fit most terminals
- Shirt-pocket size



### Phase Sequence Indicator

MODELS T-470A / T-471A

- Instantly and clearly identify A/B/C circuits
- Protects user and equipment
- Fast and easy way to make three-phase connections
- Open phase lights both lamps
- T-470: 115 TO 700 V, 400 Hz
- T-471: 115 TO 700 V, 50/60 Hz



### 110A 1000 V AC/DC Safety Voltmeter – Category III

MODEL 110A

- 1000 Volts AC and DC
- Single switch, single range
- Eliminates arc-flash potential during line clearing
- Tested to 2,500 Volts
- 1M of resistance in each test lead to limit current
- IEC 61010-1 Overvoltage Protection Category III, Category IV to 600 V, CE, CSA and UL approved
- Auto Power Off
- 3 year warranty



### No “Phantom” Voltage Indication

Voltman™ True RMS Industrial Safety Voltmeter

MODEL 125

- Eliminates false readings when induced voltage is present
- Single-switch, single-range, AC/DC measurement to 750 V
- Automatic continuity tester
- True RMS measurement
- Molded probes with retractable probe tip covers
- Dual-probe holder with positive lock probe extension for safe, easy two-handed operation
- Safety and Productivity at an affordable price
- 3 year warranty



### Voltman™ Industrial Safety Voltmeter with Audible Tone and Continuity

MODEL 122

- Eliminates false readings when induced voltage is present
- Single-switch, single-range, AC/DC measurement to 750 V
- Automatic, audible continuity tester
- Display lights and tone sounds when voltage is present
- Molded probes with retractable probe tip covers
- Dual-probe holder with positive lock probe extension for safe, easy two-handed operation
- Safety and Productivity at an affordable price
- 3 year warranty



### 2252 Ω Thermistor Thermometer

MODELS 865 / 866

- Measure temperatures from -55 °C to +150 °C (-70 °F to +300 °F)
- Accuracy: 0.3 % of reading
- Resolution 1° or 0.1°
- °F (Model 865) or °C (Model 866) scales
- Big, easy-to-read LCD display
- 1 year warranty



### 100 Ω Platinum RTD Thermometer

MODELS 868 / 869

- Display temperatures from -360 °F to +1100 °F
- Accuracy: 0.3 % of reading
- Resolution 1° or 0.1°
- Accept three-wire and four-wire platinum probes
- °F (Model 868) or °C (Model 869) scales
- Ideal for cryogenic and high-temperature research or industrial monitoring
- 1 year warranty



# Preferred Choice of Food Processors, Simplifies Compliance to HACCP Programs

## Single Input Handheld Digital Thermometer

MODEL 819A

- Range -346 °F to 2502 °F
- Exceptional accuracy: 0.1 %
- Resolution 0.1/1 °F OR °C
- Repeatability 0.2 °C typical
- ROHS compliant
- Input: K, J and T thermocouples
- Hold display values
- Self-diagnostics show low battery, open TCs, over range, or internal hardware faults
- 2 year calibration guarantee with 3 year warranty



## Temperature Calibrator / Thermometer

MODEL 840A

- Accuracy 0.3 °C ( $\pm 0.5$  °F)
- Input K, J and T type thermocouple
- Simulates and measures K, J and T Type thermocouples
- Calibrator and Thermometer in one unit
- Certificate of Traceability
- 2 year calibration guarantee with 3 year warranty



## Dual Input Handheld Digital Thermometer

MODEL 820A

- Range -346 °F to 2502 °F
- Exceptional accuracy: 0.1 %
- Resolution 0.1/1 °F OR °C
- 6 Data logging registers
- Input: K, J thermocouples
- Trend indicators show rising, falling, or stable temperature
- View or continuously scan T1, T2 and T1 minus T2
- Self-diagnostics show low battery, open TCs, over range, or internal hardware faults
- 2 year calibration guarantee with 3 year warranty



## Temperature Calibrator / Thermometer with 11 TC types

MODEL 845

- Simulates and measures 11 Thermocouple types
- Step and Ramp Functions provide fast and easy calibration of process controls and instruments
- Accuracy 0.3 °C ( $\pm 0.5$  °F)
- Calibrator and Thermometer in one unit
- Certificate of Traceability
- 2 year calibration guarantee with 3 year warranty



## Temperature Calibrator / Thermometer with RTD and Thermistor

MODEL 850

- RTD, Ohms, Thermocouple and Thermistor functions
- Calibrator and Thermometer in one unit
- 0.1 °C ( $\pm 0.2$  °F) RTD, 0.3 °C ( $\pm 0.5$  °F) Thermocouple and Thermistor Accuracy
- Certificate of Traceability
- 2 year calibration guarantee with 3 year warranty



## Dual Input Handheld Digital Thermometer

MODEL 821A

- Range -346 °F to 2502 °F
- Exceptional accuracy: 0.1 %
- Resolution 0.1/1 °F OR °C
- 6 Data logging registers
- Input: K, J and T thermocouples
- Trend indicators show rising, falling, or stable temperature
- View or continuously scan T1, T2 and T1 minus T2
- Self-diagnostics show low battery, open TCs, over range, or internal hardware faults
- 2 year calibration guarantee with 3 year warranty



## Temperature Calibrator / Thermometer with RTD and Thermistor

MODEL 855

- Step and Ramp Functions provide fast and easy calibration of process controls and instruments
- Calibrator and Thermometer in one unit
- 0.1 °C ( $\pm 0.2$  °F) RTD, 0.3 °C ( $\pm 0.5$  °F) Thermocouple Accuracy
- Simulates and measures 11 Thermocouple and 2 RTD types
- Certificate of Traceability
- 2 year calibration guarantee with 3 year warranty





# Probes Designed for the Food Industry

## Penetration Probe

MODEL 8714A

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy: ±1.5%
- Sensor Type: K
- Sheath: 3" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Hypodermic Probe, Type K

MODEL 87127

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy: ±1.5%
- Sensor Type: K
- Sheath: 3" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Hypodermic Probe, Type T

MODEL 87527

- Temperature Range: 0 °F to 660 °F (-18 °C to 349 °C)
- Accuracy: ±1.5%
- Sensor Type: T
- Sheath: 3" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Penetration Probes

86504 SERIES

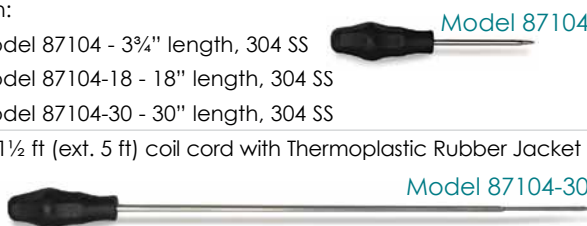
- Temperature Range: -40 °F to +300 °F (-40 °C to 149 °C)
- Accuracy: 0 °C to +70 °C: ±0.20 °C
- Sensor Type: Thermistor
- Sheath:
  - Model 86504 - 3¼" length, 304 SS
  - Model 86504-18 - 18" length, 304 SS
  - Model 86504-30 - 30" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Penetration Probes, Type K

87104 SERIES

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy: ±1.5%
- Sensor Type: K
- Sheath:
  - Model 87104 - 3¼" length, 304 SS
  - Model 87104-18 - 18" length, 304 SS
  - Model 87104-30 - 30" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Penetration Probes, Type T

87504 SERIES

- Temperature Range: 0 °F to 660 °F (-18 °C to 349 °C)
- Accuracy: ±1.5%
- Sensor Type: T
- Sheath:
  - Model 87504 - 3¼" length, 304 SS
  - Model 87504-18 - 18" length, 304 SS
  - Model 87504-30 - 30" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Penetration Probes

86514 SERIES

- Temperature Range: -40 °F to +300 °F (-40 °C to 149 °C)
- Accuracy: 0 °C to +70 °C: ±0.20 °C
- Sensor Type: Thermistor
- Sheath:
  - Model 86514-18 - 18" length, 304 SS
  - Model 86514-30 - 30" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Penetration Probe, Type K

87114 SERIES

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy: ±1.5%
- Sensor Type: K
- Sheath:
  - Model 87114-18 - 18" length, 304 SS
  - Model 87114-30 - 30" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



## Penetration Probe, Type T

87514 SERIES

- Temperature Range: 0 °F to 660 °F (-18 °C to 349 °C)
- Accuracy: ±1.5%
- Sensor Type: T
- Sheath:
  - Model 87514-18 - 18" length, 304 SS
  - Model 87514-30 - 30" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



Be Certain with TEGAM!

INDUSTRY LEADERSHIP

We are actively involved!



NCSLI  
"Serving the World of Measurement"



Compact General Purpose / Immersion Probes

MODELS 8733, 8753

- Temperature Range:
  - Model 8733: 0 °F to 900 °F (-18 °C to 482 °C)
  - Model 8753: 0 °F to 660 °F (-18 °C to 349 °C)
- Accuracy: ±1.5%
- Sensor Type:
  - Model 8733: K
  - Model 8753: T
- Sheath: 3/4" length, 316 SS
- Cord: 1 1/2 ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket

Model 8733



Model 8753



Wire Thermocouple Probes

MODELS 8712, 8722, 8752

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy: ±1.5%
- Sensor Type:
  - Model 8712: K
  - Model 8722: J
  - Model 8752: T
- Sheath: Wire probe, 36" length
- Cord: N/A



General Purpose / Immersion Probe

MODEL 8693

- Temperature Range: 0 °F to 400 °F (-18 °C to 205 °C)
- Accuracy: -50 °C to +300 °C: ±0.1 °C
- Sensor Type: RTD
- Sheath: 8" length, 316 SS
- Cord: 1 1/2 ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket
- Model 8693-850 for use with 850/855 also available



General Purpose Probes

MODELS 8713, 8723

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy: ±1.5%
- Sensor Type:
  - Model 8713: K
  - Model 8723: J
- Sheath: 5" length, 304 SS
- Cord: 3 ft vinyl-clad straight cord

Model 8723

Model 8713



General Purpose Probe

MODEL 8663

- Temperature Range: -40 °C to +150 °C
- Accuracy: ± 0.2 °C from 0 °C to 70 °C
- Sensor Type: 2252 Ω Thermistor
- Sheath: 3/4" length, 316 SS
- Cord: 1 1/2 ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



### Air / Gas Probe

MODEL 8716

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy:  $\pm 1.5\%$
- Sensor Type: K
- Sheath: 8" length, 304 SS
- Cord: 3 ft straight cord



### Surface Probe

MODEL 8715A

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy:  $\pm 1.5\%$
- Sensor Type: K
- Sheath: 6" length, 304 SS
- Cord: 3 ft vinyl-clad straight cord



### Air / Gas Probe

MODEL 8696

- Temperature Range: 0 °F to 400 °F (-18 °C to 205 °C)
- Accuracy: -50 °C to +300 °C:  $\pm 0.1 \Omega$
- Sensor Type: RTD
- Sheath: 8" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket
- Model 8696-850 for use with 850/855 also available



### Surface Probe

MODEL 8695A

- Temperature Range: 0 °F to 400 °F (-18 °C to 205 °C)
- Accuracy: -50 °C to +300 °C:  $\pm 0.1 \Omega$
- Sensor Type: RTD
- Sheath: 6" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket
- Model 8695-850 for use with 850/855 also available



### Air / Gas Probe

MODEL 8666

- Temperature Range: -40 °C to +150 °C
- Accuracy:  $\pm 0.2 \text{ } ^\circ\text{C}$  from 0 °C to 70 °C
- Sensor Type: 2252  $\Omega$  Thermistor
- Sheath: 3¾" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



### Surface Probe

MODEL 8737A

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy:  $\pm 1.5\%$
- Sensor Type: K
- Sheath: Griddle probe, N/A
- Cord: 3 ft armored cable



### Surface Probe

MODEL 83115

- Temperature Range: 0 °F to 900 °F (-18 °C to 482 °C)
- Accuracy:  $\pm 1.5\%$
- Sensor Type: K
- Sheath: 8" length, 304 SS
- Cord: 3 ft coil cord
- Model 83105 is right-angle version



### Surface Probe

MODEL 8665A

- Temperature Range: -40 °C to +150 °C
- Accuracy:  $\pm 0.2 \text{ } ^\circ\text{C}$  from 0 °C to 70 °C
- Sensor Type: 2252  $\Omega$  Thermistor
- Sheath: 3¾" length, 304 SS
- Cord: 1½ ft (ext. 5 ft) coil cord with Thermoplastic Rubber Jacket



Our expert team is here to create a solution with you for your specific measurement.



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## Certifications

\*TEGAM, Inc. meets the requirements of ISO/IEC 17025:2005 "General Requirements for the Competence of Testing and Calibration Laboratories" through A2LA Certification Number 2018.01.

\*The R1L-E2A Intrinsically Safe Bond Meter meets the latest international standards, including ATEX Ex ia IIA T4 Ga and C-UL-US Listed Class I, Div. 1, Group D in compliance with ANSI/UL 913-1988, Fifth Edition, 21 February, 1997.

