

PROFESSIONAL FOOD SERVICE THERMOMETERS

FOR HACCP &
FOOD QUALITY



Measure accurately and reliably with fast response

Analyze critical temperature control points for HACCP compliance

Greatly reduce the risk of foodborne illness.

ISO 9001 Certified



From pocket-sized thermometers to dataloggers, Hanna offers a wide variety of instruments for the food sector.

HI 141 NTC THERMOLOGGERS

- 1 or 2 channels, with internal or external sensor
- 16,000 samples/channel (for 1 channel models) or 8,000 samples/channel (for 2 channel models)
- Logging interval from 1 second to 24 hours
- Logging delay start up to 199 hours, and magnetic start
- Programmable high and low alarms
- Non-volatile storage of logging parameters and data in EEPROM
- IP67 waterproof casing

The NEW HI 141 series is a family of temperature data loggers with either one or two channels, internal or external temperature sensors and an optional LCD. External temperature sensor models feature one or two stainless steel sensors on a 1 meter (3.3') cable for direct insertion. HI 141 can store up to 16,000 temperature samples in a protected, non-volatile EEPROM memory. The logging interval can be set from once per second up to every 24 hours and logging delay start can be set anywhere up to 199 hours. The MIN or MAX temperature between logging intervals can also be stored. All of your collected data is tamper-



proof and stored into serial numbered lots. The user interacts with the logger setting data acquisition parameters or downloading logged data through an RS232 serial port on a Windows® PC. The HI 141000 Windows® software supports communication between the logger and the PC through the HI 141001 infrared transmitter. The housing is waterproof to IP 67 standards and can include a convenient hanging loop (simply add an "H" to the end of the code). A long-life AA lithium battery provides power. For a typical 1 minute logging interval, your battery will last about 4 years. Hanna's unique Battery Error Protection System, (BEPS), signals when it is time to change the battery. The housing is designed so you can change the battery yourself.

Specifications

Model	LCD	Sensor(s)	Range
HI 141A (H)		1 internal	-40.0 to 80.0°C -40.0 to 175.0°F
HI 141B (H)		1 external	-40.0 to 125.0°C -40.0 to 257.0°F
HI 141C (H)	•	1 internal	-20.0 to 70.0°C -4.0 to 158.0°F
HI 141D (H)	•	1 external	-40.0 to 125.0°C -40.0 to 257.0°F
HI 141E (H)		1 internal 1 external	-40.0 to 80.0°C -40.0 to 175.0°F -40.0 to 125.0°C -40.0 to 257.0°F
HI 141F (H)		2 external	-40.0 to 125.0°C -40.0 to 257.0°F
HI 141G (H)	•	1 internal 1 external	-20.0 to 70.0°C -4.0 to 158.0°F -40.0 to 125.0°C -40.0 to 257.0°F
HI 141J (H)	•	2 external	-40.0 to 125.0°C -40.0 to 257.0°F

Specifications for all models

Resolution	0.1°C (-40.0 to 100.0°C); 0.2°C (temp. > 100.0°C) 0.1°F (-40.0 to 190.0°F); 0.3°F (temp. > 190.0°F)
Accuracy	±0.5°C (-40.0 to 0.0 and 70.0 to 100.0°C) ±0.4°C (0.0 to 70.0°C) ±1.0°C (temperature > 100.0°C) ±1.0°F (-40.0 to 32.0 and 158.0 to 212.0°F) ±0.8°F (32.0 to 158.0°F) ±2.0°F (temperature > 212.0°F)
Diameter	86.5 mm (3.4")
Height	35 mm (1.4")
Weight	150 g (5.54 oz.)

Ordering Information

Each HI 141 series thermologger comes complete with one 3.6V lithium AA battery and instructions.

Accessories

HI 141000	Windows® application software
HI 141001	Infrared transmitter
HI 740221	Magnetic key to start datalogging

The HI 141 thermologgers feature a large, liquid crystal display showing a wide variety of information while simultaneously storing it. From the LCD, you can immediately tell the current temperature, channel and status of the logging sequence according to your programmed instructions:

Countdown until
the start of logging



Number of
samples taken



Number of samples
which have exceeded
HIGH/LOW alarms



HIGH and LOW
temperature values



HIGH and LOW
alarm settings



HI 140 Temperature Datalogger

- 7,600 recordings in non-volatile EEPROM
- User-selectable interval from 1 minute to 24 hours
- Programmable serial and user ID numbers
- Out-of-range intermittent LED alarm signal
- AA batteries providing 4 years of continuous use
- Optional, cordless transmitter and software programs for Windows®

The HI 140 dataloggers represent the most economical and secure way of monitoring temperature continuously over long periods of time. They can be placed with goods on the move, on supermarket shelves and in warehouses and act as your eyes and ears. They record the temperature at a given interval to make sure that perishable goods are not left unattended on a loading dock on the other side of the world! They can testify if fresh fish remained at unacceptable temperatures and for how long! They can provide that extra guarantee that goods never ventured off limits that public safety imposes or you regard as



reasonable. HI 140 can store up to 7,600 measurements at selectable intervals from 1 minute to 24 hours. All parameters can be set through our Windows® compatible software. An infrared cradle eliminates the need to put a connector on the meter - an undesirable dirt-trap in the food market and source of problems due to wear and tear over time.

Thanks to the HI 92140 software, you can import the data in Excel® and show it in clear graphic format. You can also set min. and max. levels, delayed start time as well as a password. Should the registered temperature exceed your desired limits, a red LED on the meter will start flashing and remains so until the meter is reset by authorized personnel. HI 140 runs on inexpensive and readily available AA type batteries. It is completely waterproof and does not require calibration.

Specifications

With Hook (molded eye):

Model	Range	Accuracy
HI 140AH	-30.0 to 70.0°C / -22.0 to 158.0°F	±1.5°C/ ±3°F
HI 140BH	-10.0 to 30.0°C / 14 to 86°F	±0.5°C/ ±1°F
HI 140CH	-30.0 to 10.0°C / -22 to 50°F	±0.5°C/ ±1°F
HI 140DH	20.0 to 60.0°C / 68 to 140°F	±0.5°C/ ±1°F
HI 140EH	-30.0 to -10.0°C / -22 to 14°F	±0.3°C/ ±0.6°F
HI 140FH	20.0 to 40.0°C / 68 to 104°F	±0.3°C/ ±0.6°F
HI 140GH	-5.0 to 15.0°C / 23 to 59°F	±0.3°C/ ±0.6°F

All above models come with a molded eye. For models without the hook, leave "H" off the part number.

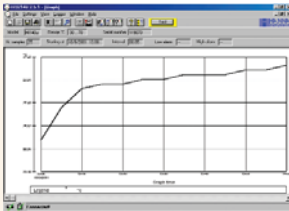
Ordering Information

HI 140A	-30.0 to 70.0°C / -22.0 to 158.0°F logger
HI 140B	-10.0 to 30.0°C / 14 to 86°F logger
HI 140C	-30.0 to 10.0°C / -22 to 50°F logger
HI 140D	20.0 to 60.0°C / 68 to 140°F logger
HI 140E	-30.0 to -10.0°C / -22 to 14°F logger
HI 140F	20.0 to 40.0°C / 68 to 104°F logger
HI 140G	-5.0 to 15.0°C / 23 to 59°F logger
HI 140AH	-30.0 to 70.0°C / -22.0 to 158.0°F logger with hook
HI 140BH	-10.0 to 30.0°C / 14 to 86°F logger with hook
HI 140CH	-30.0 to 10.0°C / -22 to 50°F logger with hook
HI 140DH	20.0 to 60.0°C / 68 to 140°F logger with hook
HI 140EH	-30.0 to -10.0°C / -22 to 14°F logger with hook
HI 140FH	20.0 to 40.0°C / 68 to 104°F logger with hook
HI 140GH	-5.0 to 15.0°C / 23 to 59°F logger with hook

All loggers have the following features: programmable high and low alarm thresholds, programmable logging interval from 1 minute to 24 hours, logging delay start selectable from 0 min. to 24 hours, programmable serial and user ID numbers, infrared bidirectional RS232 optical communication link, programmable real time clock and 3 x 1.5 AA batteries (**included**) with approx. life of 4 years at 25°C.

Accessories

- HI 90140 Infrared transmitter
- HI 92140 Windows® compatible software



Completely user friendly - set the parameters to best fit your application



HI 935005 K-Type Thermocouple Thermometer

- **Min & Max functions**

The HI 935005 will recall the highest or lowest reading taken at the touch of a button. There is also a hold key to freeze the display.

- **High range**

The K-type thermocouple measures temperature from -50 to 950°C and from -58 to 1742°F.

- **°C/°F button**

By simply pressing a button, your thermometer will switch from measurements in Centigrade to readings in Fahrenheit.

The **HI 935005** is a hand-held waterproof thermometer that uses a K-type sensor together with an advanced microprocessor to deliver accurate temperature measurement with an extraordinary 1,600 hour battery life. The new dual-level LCD displays current temperature along with the minimum and maximum extremes achieved during the session. Battery level indication with low battery warning and error prevention furnishes this meter with advanced battery management functions. A HOLD button allows the user to record readings. The °C/°F button instantly switches between the Celsius and Fahrenheit ranges. A



wide variety of interchangeable probes are available to meet specific applications.

The Hanna exclusive shockproof rubber boots, **HI 710007** and **HI 710008** compliment the **HI 935005** with maximum impact protection.

Specifications

Range	-50.0 to 150.0°C; -58.0 to 302.0°F -50 to 950°C; -58 to 1742°F
Resolution	0.1°C (-50.0 to 150.0°C)/1°C (-50 to 950°C) 0.2°F (-58.0 to 302.0°F)/1°F (-58 to 1742°F)
Accuracy	±0.2% Full Scale, for one year, excluding probe error
Typical EMC Deviation	±3°C; ±6°F with HI 766 K-type thermocouple probe
Probe	K-type thermocouple (optional)
Battery Type/Life	1 x 9V/approx. 500 hours of continuous use
Environment	0 to 50°C (32 to 122°F); RH 95%
Dimensions	143 x 80 x 38 mm (5.6 x 3.1 x 1.5")
Weight	320 g (11.3 oz.)

Ordering Information

HI 935005 is supplied with wrist strap, 9V battery and instruction manual.

Accessories

HI 766C	Penetration probe with 1 m (3.3') cable
HI 766E1	General use probe with 1 m (3.3') cable
HI 710004	Soft carrying case
HI 710007	Blue shockproof rubber boot
HI 710008	Orange shockproof rubber boot



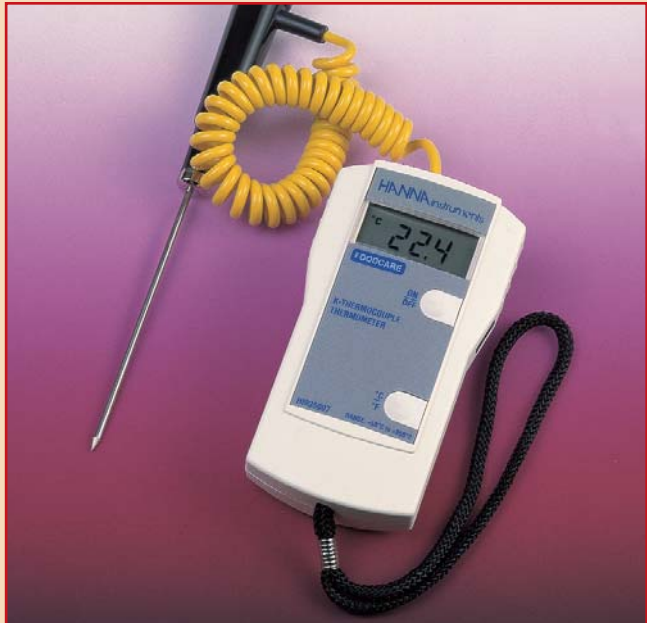
Use Anywhere

HI 935007 Thermocouple Thermometer with Direct K-Type Probe

- Ideal for catering, food preparation and restaurants.
- 500 continuous hours of operation from one 9V battery.
- Optional rubber boot provides maximum impact protection.

HI 935007 enhances the range of portable Hanna thermometers by measuring temperatures as high as 950°C. The resolution remains 0.1 from -50°C to 150°C. The HI 935007 can also measure in Fahrenheit with 0.2°F resolution in the lower range.

The fixed HI 766C penetration probe with 1 meter (3.3') of cable is also supplied with the instrument. With the optional Hanna rubber boot, you can use HI 935007 anywhere with maximum impact protection. These features make the HI 935007 extremely popular in catering, food preparation and restaurants.



Specifications

Range	-50.0 to 150.0°C; -50 to 950°C -58.0 to 302.0°F; -58 to 1742°F
Resolution	0.1°C, 1°C, 0.2°F; 1°F
Accuracy	±0.2% F.S. for one year, excluding probe error
Probe	HI 766C (fixed)
Battery Type/Life	1 x 9V/approx. 500 hours
Environment	0 to 50°C (32 to 122°F)
Dimensions	143 x 80 x 38 mm (5.6 x 3.1 x 1.5")
Weight	320 g (11.3 oz)

Ordering Information

HI 935007 supplied with fixed HI 766C probe and 9V battery

Accessories

- HI 710004 soft carrying case
- HI 710031 hard carrying case
- HI 710007 blue shockproof boot
- HI 710008 orange shockproof boot

HI 147 *Checkridge* Temperature Monitor with Magnetic Backing and Remote Thermistor Sensor on a 1 m Cable

Few manufacturers have given any thought to providing the user a convenient means to monitor internal temperature conditions from the outside. When the contents of freezer and refrigeration units must be monitored to ensure their safety and preservation, you need a thermometer just as sophisticated and efficient. The HI 147 is the ideal choice when you need accurate and reliable temperature monitoring.



- Large, easy-to-read LCD.
- User can easily verify the status of the meter with our Cal-check feature.
- Thermistor probe with 1m cable designed to reach into refrigerators and freezers.
- Fast responding food grade stainless steel thermistor probe and silicon cable are easy to keep clean.
- Low battery warning "ERR" message displays when battery must be changed.
- Magnetic backing provides an easy way to attach to metal refrigerators and freezers.

Specifications

Checkridge °C	
Range	-50.0 to 150.0°C
Resolution	0.1°C
Accuracy (@25°C/77°F)	±0.3°C (-20 to 90°C); ±0.5°C (outside)
Typical EMC Deviation	±0.5°C
Calibration	In factory only
Calibration Check	Manual with front mounted switch
Probe	Stainless steel, general purpose 40 x 5 mm (1.5 x .187") and 1 meter silicon cable
Battery Type/Life	1 x 1.5V AAA/approximately 3 years
Environment	0 to 50°C (32 to 122°F); RH 95%
Dimensions	92 x 36 x 28 mm (3.625 x 1.25 x 1")
Weight	60 g (2.4 oz.)

Checkridge °F

Range	-58.0 to 302°F
Resolution	0.1°F (-58 to 199.9°F); 1°F (200 to 302°F)
Accuracy (@25°C/77°F)	±0.5°F (-4 to 194°F); ±1°F (outside)
Typical EMC Deviation	±0.8°F
Calibration	In factory only
Calibration Check	Manual with front mounted switch
Probe	Stainless steel, general purpose 40 x 5 mm (1.5 x .187") and 1 meter silicon cable
Battery Type/Life	1 x 1.5V AAA/approximately 3 years
Environment	0 to 50°C (32 to 122°F); RH 95%
Dimensions	92 x 36 x 28 mm (3.625 x 1.25 x 1")
Weight	60 g (2.4 oz.)

Ordering Information

HI 147-00 (°C) is supplied complete with 1.5V AAA battery and instruction manual.

HI 147-01 (°F) is supplied complete with 1.5V AAA battery and instruction manual.



HI 141 *Checktemp*[®]4 with Folding Penetration Thermistor Probe

- **Environmentally friendly**

Glass thermometers are hazardous to the user and to the environment. The glass contains lead and the measurement media is either mercury or alcohol. These materials are undesirable in today's workplace.

- **The folding probe makes the *Checktemp*[®]4 smaller and easier to carry**

- **Cal-Check is performed each time the meter is turned on**

- **Battery ERR message when batteries need replacement**

- **Auto shut-off after 8 minutes**

The *Checktemp*[®]4 gives you practical solutions to temperature measurement for food service. As you unfold the stainless steel probe, the *Checktemp*[®]4 automatically turns ON and immediately performs a calibration test. This unique Hanna feature, Cal-Check, provides you the security of knowing you have accurate measurements. Cal-Check lets you know if your battery level is too low or if your thermometer requires re-calibration.

Special attention was given to the design of the *Checktemp*[®]4. This thermometer fits comfortably and securely in your hand. The



oversized liquid crystal display is easy to see and read. The fast responding folding probe is made of high quality stainless steel and can penetrate semi-frozen and semi-solid foods like meats, ice cream and cheeses. When you are finished using your *Checktemp*[®]4, wipe the probe clean and fold it away. The *Checktemp*[®]4 automatically turns OFF so you can safely carry it in your pocket. We have even included a wrist strap for extra security.



Checktemp® 4 °C	
Range	-50.0 to 220°C
Resolution	0.1°C (-50.0 to 199.9°C)/1°C (200 to 220°C)
Accuracy (@25°C/77°F)	±0.4°C (-20.0 to 90.0°C)/±1% F.S. (outside)
Typical EMC Deviation	±0.3°C
Calibration	Performed in factory only
Calibration Check	Automatic when turned ON
Probe	Stainless steel, penetration 117 x 3.5 mm (6.75 x .187")
Battery Type/Life	1 x 1.5V AA/approx. 25,000 hours.
Environment	0 to 50°C (32 to 122°F); RH 95%
Dimensions	165 x 50 x 20 mm (6.5 x 2 x 1")
Weight	100 g (3.6 oz.)

Checktemp® 4 °F	
Range	-58.0 to 428°F
Resolution	0.1°F (-58.0 to 199.9°F)/1°F (200 to 428°F)
Accuracy (@20°C)	±0.8°F (-4.0 to 194.0°F)/±1% F.S. (outside)
Typical EMC Deviation	±0.6°F
Calibration	Performed in factory only
Calibration Check	Automatic when turned ON
Probe	Stainless steel, penetration 117 x 3.5 mm (6.75 x .187")
Battery Type/Life	1 x 1.5V AA/approx. 25,000 hours.
Environment	0 to 50°C (32 to 122°F); RH 95%
Dimensions	165 x 50 x 20 mm (6.5 x 2 x 1")
Weight	100 g (3.6 oz.)

Ordering Information

- HI 151-00 (Checktemp® 4 °C) comes complete with 1.5V battery, wrist strap and instructions.
- HI 151-001 (Checktemp® 4 °C) comes complete with 1.5V battery, **factory calibration certificate**, wrist strap and instructions.
- HI 151-01 (Checktemp® 4 °F) comes complete with 1.5V battery, wrist strap and instructions.
- HI 151-011 (Checktemp® 4 °F) comes complete with 1.5V battery, **factory calibration certificate**, wrist strap and instructions.

Self-diagnostic



Calibration



Ready for operation



Cal-Check Features

Temperature Probes

HI 766 K-Type Thermocouple Probes

HI 766C1 Ultra-fast penetration probe with integral handle, 1 meter (3.3') cable and a mini-connector

- Use: semi-solids, food
- MAX temperature: 300°C/570°F
- Response time (90% of final value): 4 sec.
- Probe length: 95 mm (3.7"); diam. 1.6 mm (0.06")
- Tube in stainless steel

HI 766C Penetration probe with integral handle, 1 meter (3.3') cable and a mini-connector

- Use: semi-solids, meat, rubber, etc.
- MAX temperature: 900°C/1650°F
- Response time (90% of final value): 15 sec.
- Probe length: 120 mm (4.8"); dia 3 mm (0.12")
- Tube in stainless steel

HI 766E1 General purpose probe with detachable handle

- Use: liquids, gases, etc.
- MAX temperature: 900°C/1650°F
- Response time (90% of final value): 6 sec.
- Probe length: 120 mm (4.7"); dia 3 mm (0.12")
- Tube in stainless steel

HI 766F High temperature wire probe for ovens with 1 meter (3.3') cable and a mini-connector

- Flexible sheath
- MAX temperature: 1100°C/2000°F
- Response time (90% of final value): 4 sec.
- Probe length: 255 mm (10"); dia 1.5 mm (0.06")
- Tube in AISI 316 stainless steel (no-handle)

Hanna offers a wide selection of thermocouple, thermistor and Pt100 4-wire probes to fit your application!

For more information, contact HANNA Instruments at:
phone: 877.694.2662 • fax: 401.765.7575
web: www.hannainst.com
or contact your local distributor.



Authorized Distributor www.clarksonlab.com

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Special Markets Division