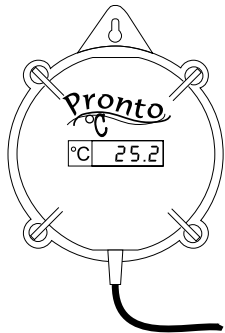


## Instruction Manual

**pronto & pronto**

HI 146-00, HI 146-01  
**Thermometers**



**HANNA**  
instruments

**CE**  
These Instruments are in  
Compliance with the CE Directives

<http://www.hannainst.com>

Dear Customer,

Thank you for choosing a Hanna product. This manual will provide you with the necessary information for the correct operation of the meter. Please read it carefully before using the meter. If you need additional technical information, do not hesitate to e-mail us at [tech@hannainst.com](mailto:tech@hannainst.com). This instrument is in compliance with **CE** directives EN 50081-1 and EN 50082-1.

### PRELIMINARY EXAMINATION

Remove the instrument from the packing material and examine it carefully. If any damage has occurred during shipment, immediately notify your Dealer or the nearest Hanna Customer Service Center.

Note: Conserve all packing material until the instrument has been observed to function correctly. Any defective item must be returned in its original packing.

Hanna Instruments reserves the right to modify the design, construction and appearance of its products without advance notice.

### GENERAL DESCRIPTION

These instruments are specially designed to meet the needs of simple continuous monitoring of temperature.

The housing has been completely sealed against vapors and humidity with IP54 rating.

You can simply hang the meter right above the sample to be tested for continuous measurement.

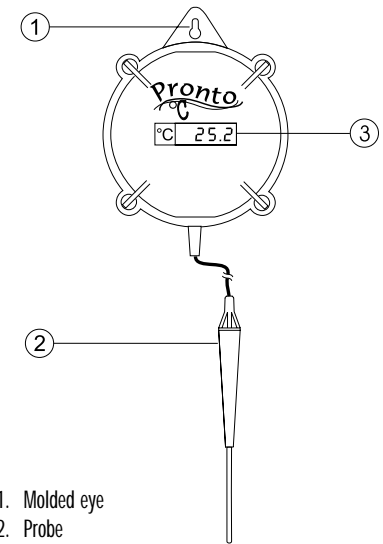
The probe is easy to clean and requires little maintenance.

Two models are available:

- HI 146-00 displays temperature in Centigrade degrees
- HI 146-01 displays temperature in Fahrenheit degrees.

A protected switch allows a quick check of the meter accuracy at any time.

### FUNCTIONAL DESCRIPTION



1. Molded eye
2. Probe
3. Liquid Crystal Display

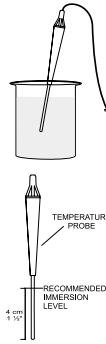
## SPECIFICATIONS

HI 146-00	
Range	-50.0 to +150.0°C
Resolution	0.1°C
Accuracy (@ 20°C/68°F)	± 0.3°C (-20 to 90°C) ± 0.5°C (outside)
Typical EMC Deviation	± 0.3°C
HI 146-01	
Range	-58.0 to +302°F
Resolution	0.1°F (-58.0 to 199.9°F), 1°F(200 to 302°F)
Accuracy (@ 20°C/68°F)	± 0.5°F (-4 to 194°F) ± 1°F (outside)
Typical EMC Deviation	± 0.5°F
Common specifications	
Casing	IP54
Probe	Stainless steel probe with 2m (6.6') cable
Battery Type/Life	1 x 1.5V AA type alkaline/5 years
Dimensions	86 x 100 x 33 mm (3.4 x 3.9 x 1.3")
Weight	130g (4.5 oz.)

## OPERATIONAL GUIDE

### OPERATION:

- Dip HI146 probe in the sample. An immersion level of 4 cm (1 ½") is recommended.
- Do NOT immerse the probe handle.
- Do NOT wrench the probe or put heavy objects on the cable. If the cable is damaged, the meter needs to be replaced.
- Wait for a few seconds for the display to stabilize.
- Variations in readings or fading display can indicate a weak battery.



### CALIBRATION CHECK SWITCH:

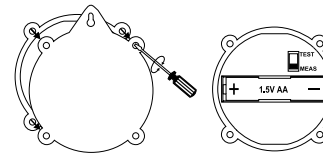
Remove the four screws from the back and remove the back cover. Select "TEST" with the switch close to the battery. The display should show  $0.0 \pm 0.3^\circ\text{C}$  ( $32.0^\circ\text{F} \pm 0.5^\circ\text{F}$ ).

Contact your dealer or your nearest Hanna Service Center for recalibration, if necessary. To return to measure mode, select "MEAS" with the switch. Replace the back cover and tighten the four screws.

## BATTERY REPLACEMENT

When the display fades, remove the four screws on the back, remove the back cover and change the 1.5V AA battery, paying attention to its polarity. Replace the cover and tighten the four screws.

Battery should only be replaced in a safe area using the battery type specified in this instruction sheet.



## CE DECLARATION OF CONFORMITY

Recommendations for Users  
Before using these products, make sure that they are entirely suitable for the environment in which they are used. Operation of these instruments in residential areas could cause unacceptable interferences to radio and TV equipment. Any variation introduced by the user to the supplied equipment may degrade the instrument's EMC performance. To avoid electrical shock, do not use these instruments when voltages at the measurement surface exceed 24 VAC or 60 VDC. To avoid damages or burns, do not perform any measurement in microwave ovens.

<b>HANNA</b> instruments	
<b>CE</b> DECLARATION OF CONFORMITY	
We, Hanna Instruments Italia Srl via E. Fermi, 30 35030 Sarmeola di Rubano - PD 35030	
hereby certify that the thermometer <b>HI 146</b>	
has been tested and found to be in compliance with the following regulations:	
IEC 801-2	Electromagnetic Discharge
IEC 801-4	RF Radiation
EN 5022	Radiated Class B
EN 61010-1	Low Voltage Equipment
Date of Issue: 5/6/2008	D. Wajsbort - Engineering Manager in behalf of Hanna Instruments S.r.l.

## WARRANTY

HI146 is warranted for two years against defects in workmanship and materials when used for its intended purpose and maintained according to instructions. The probe is warranted for a period of one year. This warranty is limited to repair or replacement free of charge.  
Damages due to accident, misuse, tampering or lack of prescribed maintenance are not covered. If service is required, contact the dealer from whom you purchased the instrument. If under warranty, report the model number, date of purchase, serial number and the nature of the failure. If the repair is not covered by the warranty, you will be notified of the charges incurred. If the instrument is to be returned to Hanna Instruments, first obtain a Returned Goods Authorization Number from the Customer Service department and then send it with shipment costs prepaid. When shipping any instrument, make sure it is properly packaged for complete protection.  
To validate your warranty, fill out and return the enclosed warranty card within 14 days from the date of purchase.

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