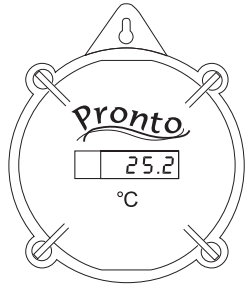


Instruction Manual

pronto

HI146-99 Thermometer



HANNA[®]
instruments
www.hannainst.com

Dear Customer,
Thank you for choosing a Hanna product.
Please read carefully this instruction manual before using the meter.
If you need additional technical information, do not hesitate to e-mail us at tech@hannainst.com.
This instrument is in compliance with the **CE** directives.

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.

The meter is supplied with battery and instructions.

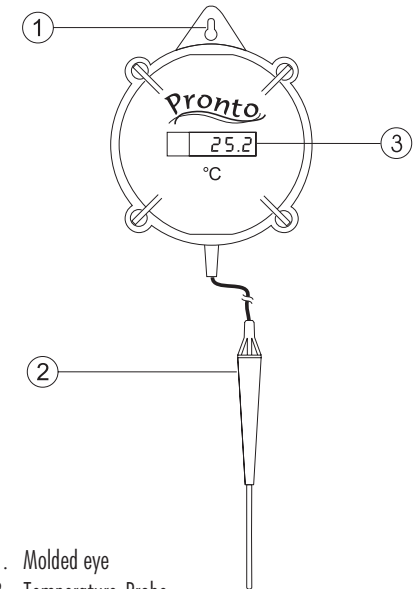
Note: Conserve all packing material until the instrument has been observed to function correctly. Any defective item must be returned in its original packing.

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

GENERAL DESCRIPTION

This instrument is specially designed to meet the needs of simple continuous monitoring of temperature. The housing has been completely sealed against dust and humidity with IP65 rating. Simply hang the meter right above the sample to be tested for continuous measurement. The probe is easy to clean and requires little maintenance. A protected switch allows a quick check of the meter accuracy at any time.

FUNCTIONAL DESCRIPTION



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

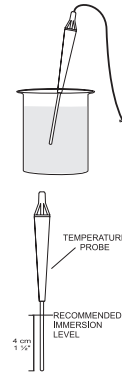
SPECIFICATIONS

Range	-50.0 to 150.0°C
Resolution	0.1°C
Accuracy	±0.3°C (-20 to 90°C) ±0.5°C (outside)
Typical EMC Deviation	±0.3°C
Probe	Stainless steel probe with 2 m (6.6') cable
Battery Type	1 x 1.5V AA, alkaline
Battery Life	approx. 5 years of use
Casing	IP65
Environment	0 to 50°C (32 to 122°F); RH 100%
Dimensions	86 x 110 x 43 mm (3.4 x 4.3 x 1.7")
Weight	150 g (5.3 oz.)

OPERATIONAL GUIDE

OPERATION

- Dip the probe in the sample to be measured. An immersion level of 4 cm (1 1/2") 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 rear cover (see also "Battery replacement" section).
- Move the internal switch to the "TEST" position.
- The display should show $0.0 \pm 0.3^\circ\text{C}$ (contact the nearest Hanna Service Center for recalibration, if necessary).

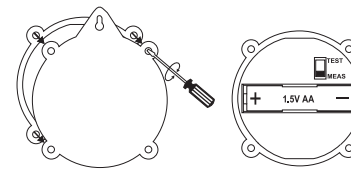
- To return to measure mode, move back the switch to "MEAS" position.
- Reattach the cover while paying attention that the gasket is in place before tightening the screws.

BATTERY REPLACEMENT

When the display fades, it is recommended to replace the battery with a new one: unscrew the screws on the meter back, remove the rear cover and change the battery, while paying attention to its polarity.

Reattach the back cover while ensuring that the gasket is in place before tightening the screws.

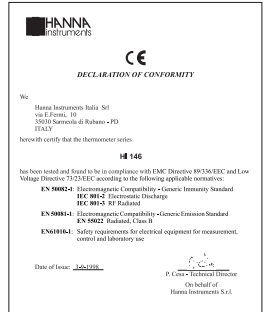
Battery should only be replaced in a safe area using one 1.5V AA alkaline type.



CE DECLARATION OF CONFORMITY

Recommendations for Users

Before using this product, make sure that it is entirely suitable for the environment in which it is used. Operation of this instrument 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 this instrument 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.



WARRANTY

This meter 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 six months.

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.

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