

PEWA Messtechnik GmbH

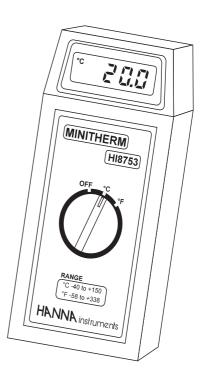
Weidenweg 21 58239 Schwerte

Tel.: 02304-96109-0 Fax: 02304-96109-88 E-Mail: info@pewa.de Homepage: www.pewa.de

Instruction Manual

HI 8751 • HI 8752 HI 8753

Electronic Thermometers for Education





Dear Customer,

Thank you for choosing a HANNA instruments® product.

Please read this instruction manual carefully before using the instrument.

The manual will provide you with the necessary information for a correct use.

If you need additional technical support, do not hesitate to e-mail us at tech@hannainst.com

These instruments are in compliance with the CE directives.

WARRANTY

All Hanna Instruments **meters are warranted for two years** against defects in workmanship and materials when used for their intended purpose and maintained according to instructions. **Probes are warranted for 6 months**. This warranty is limited to repair or replacement free of charge.

Damages due to accidents, 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 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.

All rights are reserved. Reproduction in whole or in part is prohibited without the written consent of the copyright owner.

TABLE OF CONTENTS

PRELIMINARY EXAMINATION	. 3
GENERAL DESCRIPTION	3
FUNCTIONAL DESCRIPTION & SPECIFICATIONS OF HI 8751	4
FUNCTIONAL DESCRIPTION & SPECIFICATIONS OF HI 8752	5
FUNCTIONAL DESCRIPTION & SPECIFICATIONS OF HI 8753	6
OPERATIONAL GUIDE	7
CALIBRATION	7
BATTERY REPLACEMENT	8
TEMPERATURE PROBES & ACCESSORIES	9
CE DECLARATION OF CONFORMITY	10

PRELIMINARY EXAMINATION

Remove the instrument from the packing material and examine it carefully to make sure that no damage has occurred during shipment. If noticeable damage is found, immediately notify your dealer.

Each meter is supplied complete with:

- Temperature probe with 1 m (3.3') cable:
 - HI 765PW for HI 8751
 - HI 765BL for HI 8752 and HI 8753
- 9V battery
- Instruction manual

Note: Save all packing material until you are sure that the instrument functions correctly. Any defective item must be returned in the original packing with the supplied accessories.

GENERAL DESCRIPTION

The **HI 8751**, **HI 8752** and **HI 8753** electronic thermistor thermometers can measure temperature in the low ranges (-40 to 150°C or -58 to 338°F) with high accuracy.

These thermometers use a miniature silicon sensor and are precalibrated at the factory to measure a wide temperature range without the need to change probes.

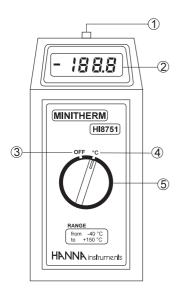
This type of sensor is highly accurate with a very fast response time.

The sensor is housed in a rugged, stainless steel probe. This probe can be replaced without requiring recalibration.

A wide variety of interchangeable temperature probes (HI 765 series) for measurements in liquids, air and semisolids are available.

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

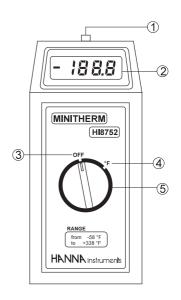
FUNCTIONAL DESCRIPTION & SPECIFICATIONS OF HI 8751



- 1) Probe connector
- 2) Liquid Crystal Display
- 3) OFF mode
- 4) Measurement mode, °C scale
- 5) Rotary switch

Range	−40.0 to 150.0°C			
Resolution	0.1℃			
Accuracy	$\pm 0.5\%$ F.S. for one year, excluding probe error			
Typical EMC Deviation $\pm 1^{\circ}$ C with HI 765PW probe				
Probe	HI 765PW stainless steel, 1 m (3.3') cable (included)			
Battery Type / Life				
1 x 9V (IEC 6LR61) / approx. 300 hours of continuous use				
Environment	0 to 50°C (32 to 122°F);			
	RH max 95% non-condensing			
Dimensions	180 x 83 x 40 mm (7.1x3.3x1.6")			
Weight	265 g (9.3 oz.)			

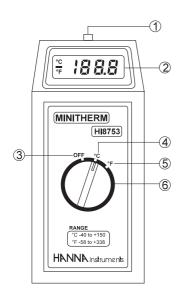
FUNCTIONAL DESCRIPTION & SPECIFICATIONS OF HI 8752



- 1) Probe connector
- 2) Liquid Crystal Display
- 3) OFF mode
- 4) Measurement mode, °F scale
- 5) Rotary switch

Range	−58 to 338°F			
Resolution	1°F			
Accuracy	$\pm 0.5\%$ F.S. for one year, excluding probe error			
Typical EMC Deviation $\pm 2^{\circ}$ F with HI 765BL probe				
Probe	HI 765BL stainless steel, 1 m (3.3') cable (included)			
Battery Type / Life				
1 x 9V (IEC 6LR61) / approx. 300 hours of continuous use				
Environment	0 to 50°C (32 to 122°F);			
	RH max 95% non-condensing			
Dimensions	180 x 83 x 40 mm (7.1x3.3x1.6")			
Weight	265 g (9.3 oz.)			

FUNCTIONAL DESCRIPTION & SPECIFICATIONS OF HI 8753



- 1) Probe connector
- 2) Liquid Crystal Display
- 3) OFF mode
- 4) Measurement mode, °C scale
- 5) Measurement mode, °F scale
- 6) Rotary switch

Range	-40.0 to 150.0°C / -58 to 338°F			
Resolution	0.1°C/1°F			
Accuracy	$\pm 0.5\%$ F.S. for one year, excluding probe error			
Typical EMC Deviation $\pm 3^{\circ}\text{C}/\pm 6^{\circ}\text{F}$				
	with HI 765BL probe			
Probe	HI 765BL stainless steel, 1 m (3.3') cable (included)			
Battery Type / Life				
1 x 9V (IEC 6LR61) / approx. 300 hours of continuous use				
Environment	0 to 50°C (32 to 122°F);			
	RH max 95% non-condensing			
Dimensions	180 x 83 x 40 mm (7.1x3.3x1.6")			
Weight	265 g (9.3 oz.)			

OPERATIONAL GUIDE

Each meter is supplied complete with a 9V battery. Remove the battery cover from the back of the thermometer, insert the battery and reattach the cover. Connect the temperature probe to the probe socket on the top of the meter.

To switch the instrument on, turn the rotary switch to $^{\circ}\text{C}$ or $^{\circ}\text{F}$ position (depending on model).



If a temperature probe is plugged in, the unit will display the measured temperature.

After use, switch the thermometer off by turning the rotary switch to OFF.



CALIBRATION

All HANNA instruments® thermometers have been accurately pre-calibrated at the factory. It is generally recommended to have all thermometers recalibrated at least once a year. For an accurate annual recalibration, contact the nearest HANNA Customer Service Center.

For a quick and easy check of the meter accuracy, HANNA instruments® offers a series of **CALIBRATION TEST KEYS** to be connected to the probe socket on the thermometer.



If the reading differs more than $\pm 0.4^{\circ}$ C ($\pm 0.8^{\circ}$ F) from the test key value, the unit is due for recalibration.

Choose the test key that better fits your application needs:

HI 765-18C	Calibration test key at	_18.0°C
HI 765000C	Calibration test key at	0.0°C
HI 765070C	Calibration test key at	70.0°C
HI 765-004F	Calibration test key at	$-0.4^\circ F$
HI 765032F	Calibration test key at	32.0°F
HI 765158F	Calibration test key at	158.0°F

BATTERY REPLACEMENT

These instruments are powered by a 9V battery.

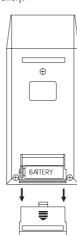
When the battery level is too low to ensure reliable readings, the Battery Error Prevention System (BEPS) automatically shuts down the LCD.

For a correct functioning of the instrument, replace the battery.

To access the battery, remove the battery cover on the rear of the meter by applying pressure in the indicated direction.

Replace the battery with a new one and reattach the cover.

Battery replacement must only take place in a safe area and using a 9V alkaline battery.



TEMPERATURE PROBES & ACCESSORIES

HANNA instruments® offers a wide range of temperature probes for measurements in air, surface, liquid and for penetration applications.

These probes use highly sensitive thermistor sensors to provide greater accuracy, faster response and a temperature range that is superior to conventional thermistor probes.

HI 765 series of temperature probes are supplied pre-calibrated at the factory and ready to use, making it possible to switch from one to another without needing time-consuming and tedious calibration procedures.

Different handle colors are available to avoid cross contamination during testing.

HI 765A Air/gas probe with 1 m (3.3') cable and white handle HI 765A/10 Air/gas probe with 10 m (33') cable and white handle HI 765BL General purpose/liquid probe, 1 m (3.3') cable & black handle HI 765BL/10 General purpose/liquid probe, 10 m (33') cable & black handle HI 765L General purpose/liquid probe, 1 m (3.3') cable & white handle HI 765L/10 General purpose/liquid probe, 10 m (33') cable & white handle HI 765PBL Penetration probe with 1 m (3.3') cable and blue handle HI 765PBL/10 Penetration probe with 10 m (33') cable and blue handle HI 765PG Penetration probe with 1 m (3.3') cable and green handle HI 765PG/10 Penetration probe with 10 m (33') cable and green handle Penetration probe with 1 m (3.3') cable and red handle HI 765PR HI 765PR/10 Penetration probe with 10 m (33') cable and red handle HI 765PW Penetration probe with 1 m (3.3') cable and white handle

HI 765PW/10 Penetration probe with 10 m (33') cable and white handle
HI 765W Wire probe without handle for hard-to-reach places, 1 m (3.3')

HI 765W/10 Wire probe without handle for hard-to-reach places, 10 m (33') cable

OTHER ACCESSORIES

HI 710002 Soft carrying case

HI 710009 Shockproof rubber boot, blue
HI 710010 Shockproof rubber boot, orange

HI 721316 Rugged carrying case

CE DECLARATION OF CONFORMITY



CE

DECLARATION OF CONFORMITY

Hanna Instruments Italia Srl via E.Fermi, 10 35030 Sarmeola di Rubano - PD ITALY

herewith certify that the thermometers

HI 8751 HI 8752 HI 8753

have been tested and found to be in compliance with EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC according to the following applicable normatives:

EN 50082-1: Electromagnetic Compatibility - Generic Immunity Standard IEC 801-2 Electrostatic Discharge IEC 801-3 RF Radiated

EN 50081-1: Electromagnetic Compatibility - Generic Emission Standard EN 55022 Radiated, Class B

EN61010-1: Safety requirements for electrical equipment for measurement, control and laboratory use

Date of Issue: <u>26-11-1998</u>

P. Cesa - Technical Director

On behalf of Hanna Instruments S.r.l.

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 interference to radio and TV equipment.

Any variation introduced by the user to the supplied equipment may degrade the instruments' EMC performance.

To avoid electrical shock, do not use these instruments when voltage at the measurement surface exceeds 24 Vac or 60 Vdc.

To avoid damages or burns, do not perform any measurement in microwave ovens.

10 11