



# THERMOMETERS AND THERMO-ANEMOMETERS

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MAIN MEASUREMENTS	HTA103	HTA105	HTA106	HTA107	HT3320	HT3300	HT3302	HT3305
Distance / infrared spot ratio	-	-	-	8:1	50:1	12:1	12:1	20:1
Infrared temperature measuring range	-	-	-	-50 ÷ 200°C -58 ÷ 392°F	-50 ÷ 1000°C -58°F ÷ 1832°F	-50 ÷ 380°C -58 ÷ 716°F	-30 ÷ 500°C -22°F ÷ 932°F	-50°C ÷ 1000°C -58°F ÷ 1832°F
Temperature measuring range with K-type probe	-250 ÷ 1372°C -418 ÷ 2502°F	-	-	-	-200 ÷ 1370°C -328 ÷ 2498°F	-	-	-50°C ÷ 1370°C -58°F ÷ 2498°F
Temperature measurement with K-type probes	• (*)	-	-	-	• (*)	-	-	• (*)
Measurement of volumetric capacity (m3/s) and enthalpy (kW)	-	•	-	-	-	-	-	-
Measurement of air relative humidity in %RH	-	•	•	• (and materials)	•	-	-	-
Measurement of wind speed in m/s	-	• (hot-wire sensor)	-	-	-	-	-	-
Integrated photo-camera (640x480pxl)	-	-	-	-	•	-	-	-
Image saving in JPG format	-	-	-	-	•	-	-	-
Video saving in 3GP format	-	-	-	-	•	-	-	-
Measurement of air temperature/humidity with built-in sensor	-	•	•	•	•	-	-	-
Temperature measurement of dew point and of wet bulb	-	-	•	•	•	-	-	-
Datalogger function for temperature measure recording	-	-	-	-	•	-	-	-
<b>ADDITIONAL CHARACTERISTICS</b>								
Emissivity adjustment of target	-	-	-	Fixed >0.95	•	Fixed >0.95	•	0.01 ÷ 1.00
Setting of alarm thresholds on measurements	-	-	-	•	•	•	•	•
Continuous measurement	-	-	-	-	•	-	-	-
Class 2 integrated laser pointer	-	-	-	•	•	•	• (Class 3R)	•
Blue LED built-in illuminators for UV function	-	-	-	-	-	-	•	-
Internal memory	-	-	-	•	•	-	-	-
SD Card slot for measure saving	-	-	-	-	•	-	-	-
PC connection through USB cable	-	-	-	-	•	-	-	-
Backlight	•	•	•	•	•	•	•	•
Autorange	•	•	•	•	•	•	•	•
Data HOLD	•	•	•	•	•	•	•	•
MAX/MIN/AVG	• (MAX/MIN)	• (MAX/MIN)	• (MAX/MIN)	• (MAX/MIN)	•	• (MAX/MIN)	•	•
Selection of measuring unit	•	•	•	•	• °C \ °F	• °C \ °F	• °C \ °F	• °C \ °F
Low battery indication	•	•	•	•	•	•	•	•
Auto Power OFF	•	•	•	•	•	•	•	•
Power supply	1x9V 6F22	1x9V 6F22	1x9V 6F22	1x9V 6F22	Rechargeable battery	1x9V 6F22	3x1,5V AA	2x1.5V AAA
Size in mm (LxWxH)	185x60x40	185x60x40	185x60x40	185x60x40	205x155x62	136x75x40	185x104x54	180x105x55
Weight in grams (batteries included)	180	180	180	180	410	140	380	240
<b>Order code</b>	<b>HN000103</b>	<b>HN000105</b>	<b>HN000106</b>	<b>HN000107</b>	<b>HA000179</b>	<b>HA003300</b>	<b>HA003302</b>	<b>HA003305</b>

\* With optional TK probes (TK101 is provided).



ORDER CODE **HN000107** | **HN000106** | **HN000105** | **HN000103**

# HTA107 | HTA106 | HTA105 | HTA103

MULTIFUNCTION DEVICES FOR MEASURING ENVIRONMENTAL PARAMETERS

The family of devices HTA10x including models HTA103, HTA105, HTA106 and HTA107 has been designed for measuring **environmental parameters** such as **temperature**, **humidity** and **air speed**. Model **HTA103** (thermometer) allows measuring **temperature** with the use of **JKT thermocouples** in the air, in contact and within **liquids** (with optional probes TK1xx). Model **HTA105** (thermo-anemometer) measures **air speed** with an **in-built hot-wire telescopic probe**, further to **temperature/humidity** and **air volumetric flow rate**. Model **HTA106** (thermo-hygrometer) measures air **temperature/humidity** with the **in-built sensor**. Model **HTA107** (multifunction thermo-hygrometer) allows measuring **air humidity** and **contact measurement** on materials with **internal sensors** and with the **provided penetration probe**. This device also allows the **infrared measurement of temperature** and the **calculation of the temperature difference** in order to establish **condensation conditions on surfaces**. Each model is provided with **display backlight** in order to make readings in poorly lit environments easier.

## Functions

	HTA107	HTA106	HTA105	HTA103
IR temperature	•	-	-	-
Temperature with KJT probes	-	-	-	•
Air temperature/humidity with in-built probe	•	•	•	-
Contact humidity	•	-	-	-
Air speed with hot-wire sensor	-	-	•	-
Air volumetric flow rate (CMM, CFM)	-	-	•	-
Dew point temperature	•	•	-	-
Wet bulb temperature	-	•	-	-
Data HOLD	-	•	•	•
MAX/MIN	•	•	•	•
Average value	-	-	•	-
Autorange	•	•	•	•
Backlight	•	•	•	•
Internal memory	•	-	-	-
Auto Power OFF	•	•	•	•

## Main features

**Display:** LCD, 4 digits (double display)  
**Power supply:** 1x9V battery type 6F22  
**Auto Power OFF:** after 15 minutes' idling  
**Internal memory:** Max 20 locations (**HTA107**)  
**Max operating altitude:** 2000m

## Technical Specifications

	HTA107	HTA106	HTA105	HTA103
<b>Temperature with K-type probe</b>				
Measuring range:	-	-	-	-250°C ÷ 1372°C -418°F ÷ 2502°F
Basic accuracy:	-	-	-	±(1%reading + 0.5°C) ±(1%reading + 0.9°F)
<b>Air temperature / humidity</b>				
Measuring range:	-28°C ÷ 77°C -20°F ÷ 170°F 0%RH ÷ 100%RH	-20°C ÷ 60°C -4°F ÷ 144°F 0%RH ÷ 100%RH	0°C ÷ 50°C 32°F ÷ 122°F 0%RH ÷ 100%RH	-
Basic accuracy:	±2°C / ±3.6°F	±1°C / ±1.8°F	±1°C / ±1.8°F	-
<b>Infrared temperature (IR)</b>				
Measuring range:	-50°C ÷ 200°C -58°F ÷ 392°F	-	-	-
Basic precision (@ 0 ÷ 50°C):	±1%rdg or 0.6°C	-	-	-
Emissivity:	0.95 (fixed)	-	-	-
Optical resolution:	D:S = 8:1	-	-	-
<b>Air speed</b>				
Measuring range:	-	-	0.10m/s ÷ 20.00m/s	-
Basic accuracy:	-	-	±(5%rdg + 0.03)	-
Resolution:	-	-	0.01m/s	-

ORDER CODE **HA000179**

# HT3320

PROFESSIONAL INFRARED VIDEO  
THERMOMETER

HT3320 is a mobile digital **video thermometer** provided with **integrated digital photo-camera** capable of measuring **temperature with no need for contact** with any target object, using their reflected infrared radiation, with a very quick performance of measurements. Measurements are carried out with high precision thanks to the integrated laser pointer and an **optimum Distance / Spot ratio of 50:1**. The device can **save** in its **internal memory** or on external **micro SD card** JPG images and short **3GP videos** which correspond to the value of the measured IR temperature. It is possible to record temperature values with **programmable time intervals**. Each test result can be **downloaded onto the PC** with no need for any additional software, by simply connecting the device through the provided **USB** cable. Further measurements carried out by the device are **temperature/humidity of air** with internal sensor, **dew point/wet bulb temperature** and temperature with use of **k-type thermocouples**. HT3320 allows setting **MAX** and **MIN** alarm thresholds on the whole measuring range, with the activation of a **buzzer** in case they are exceeded. A comfortable LCD display with backlight makes it easy to read even in critical environments. The auto power off function allows the device to preserve its internal battery when not in use.



ORDER CODE **HA003302**

# HT3302

INFRARED THERMOMETER  
WITH LASER RETICLE PROJECTION

The model HT3302 is a portable digital thermometer that performs contactless **temperature measurements** on any object extremely fast. The measurements are carried out with great precision thanks to the **integrated laser pointer** and an optimal **Distance/ Measurement Spot ratio of 12:1**. An interesting feature of this instrument is the **indication, projected onto the surface tested, of the exact area to be measured**. Very often, when using this kind of equipment (i.e. equipped with laser pointer), it is incorrectly considered that the measured area is exactly that indicated by the laser pointer. HT3302 is extremely easy to use with a **Joystick** that enables quick selection of internal functions. The auto power off function allows the instrument to preserve the internal battery when the device is not used.



## Functions and characteristics

- Infrared temperature measurement from -50° to 1000°C
- Integrated photo-camera (640x480pxl)
- Distance / Spot ratio 50:1
- Saving of images in JPG format and videos in 3GP format.
- Air temperature/humidity measurement with in-built sensor
- Temperature measurement of dew point and wet bulb
- Temperature measurement by means of external K-type probe
- Datalogger function for temperature measure recording
- Internal memory and external SD Card for measure saving
- Emissivity adjustment, double laser pointer, continuous measurement
- Selection between measuring unit °C and °F
- Setting of Hi and Lo alarm thresholds on measurements
- Data HOLD, MAX/MIN/DIF/AVG functions
- PC connection through USB cable
- **Display: 2.2" (320x240pxl), backlight colour LCD display**
- **Power supply: 1x3.7V 1400mAh Li-ION battery**
- **Battery duration: approx. 4 hours in continuous operation**
- **External power supply: 100-240VAC 50/60Hz / 5VDC**
- **Auto Power OFF: programmable 3, 15, 60min, can be disabled**
- **Internal memory: 70MB (50kB/image; video 3.1MB/min)**
- **External memory: micro SD card (max 8GB)**
- **Operating temperature: 0°C to 50°C**
- **Operating and storage humidity: <90%HR**
- **Size (LxWxH): 205x155x62mm**
- **Weight (battery included): 410g**

## Technical Specifications

- Infrared temperature measurement**
- Measuring range °C: -50° ÷ 1000°C
  - Measuring range °F: -58° ÷ 1832°F
  - Resolution: 0.1°C / 0.1°F
  - Basic accuracy: ± (1%reading + 1.0°C), ± (1%reading + 1.8°F)
- Temperature measurement with K-type probe**
- Measuring range °C: -50 ÷ 1370°C
  - Measuring range °F: -58 ÷ 2498°F
  - Resolution: 0.1°C / 0.1°F
  - Basic accuracy: ± (0.5%reading + 1.5°C), ± (0.5%reading + 2.7°F)

## Included accessories

TK101	K-type wire probe
BAT32	Rechargeable Li-ION battery
	Battery charger power supply, USB cable
	Tripod, Transport case and User manual

## Functions

- Infrared temperature measurement up to 500° C
- Integrated laser pointer
- Laser pointers for instant location of distance/measurement spot
- Automatic read lock (HOLD)
- Auto Power OFF
- Distance/Measurement spot Ratio D:S = 12:1
- Measurements in °C/°F
- Object emissivity adjustable from 0.10 to 1.00
- Backlight LCD
- Built-in white LED lights
- Integrated blue LED lights with UV function
- Measurements of MAX, MIN, MAX-MIN, AVG values
- Upper (HIGH) and lower (LOW) alarm threshold settings
- Joystick for quick selection of internal functions
- Modern ergonomic design

## Included accessories

Batteries
Transport bag
User manual

## Main features

<b>Laser Pointer:</b>	Class 3R (according to EN60825-1:2014)
<b>UV Pointer:</b>	Group 1 (according to IEC62471)
<b>Max operating altitude:</b>	2000m
<b>Safety:</b>	IEC/EN61010-1
<b>Vibrations:</b>	2.5 g in accordance with IEC60068-2-6, 10÷200Hz
<b>Shock:</b>	50 g in accordance with IEC60068-2-27, 11ms
<b>Drop test:</b>	1.2m (4ft)
<b>Display:</b>	5-digit backlight LCD
<b>Power supply:</b>	3x1.5V alkaline battery type AA LR06
<b>Battery life:</b>	approximately 20 hours (laser and backlight on)
<b>Auto Power OFF:</b>	after 5 minutes of inactivity
<b>Dimensions (L x P x H):</b>	185 x 104 x 54mm
<b>Weight (batteries included):</b>	380g

## Technical specifications

- Infrared temperature measurement**
- Reading range °C: -30° ÷ 500°C
  - Reading range °F: -22° ÷ 932°F
  - Resolution: 0.1 °C - 0.2 °F
  - Standard accuracy: ±1.5°C o ±1.5%reading
  - Response time: <500ms
  - Spectral sensitivity: 8 ÷ 14µm
  - D/S ratio: 12:1
  - Emissivity range: 0.10 ÷ 1.00



ORDER CODE **HA003305** | **HA003300**

# HT3305 HT3300

ULTRA-COMPACT INFRARED THERMOMETERS

Handy and extremely practical systems for reading infrared temperature with a laser system, providing visual and audio indications every time the measured value changes. **HT3305** also allows performing **temperature measurements with a K-type probe**. These models were thought for very quick measurements to detect, with no loss of time, temperature variations.



## Functions

	<b>HT3300</b>	<b>HT3305</b>
Infrared temperature measurement	-50°C÷380°C	-50°C÷1000°C
Built-in laser pointer	•	•
Laser pointer area for an immediate localization of distance/spot	•	•
Automatic reading lock (HOLD)	•	•
Auto Power OFF	•	•
Distance / Spot ratio D:S	12:1	20:1
Temperature measurement with K-type probe	-	•
Adjustment of emissivity	- (>0.95)	•
Measures in °C/°F	•	•
Data HOLD	•	•
MAX, MIN, AVG functions	•	•
Acoustic alarm for values higher than MAX and lower than MIN	•	•
Backlight	•	•
Auto Power OFF	•	•
Ergonomic and ultra-compact design	•	•



## Main features

<b>Laser pointer:</b>	Class 2
<b>Display:</b>	LCD with backlight
<b>Power supply:</b>	1x9V battery type 6F22 ( <b>HT3300</b> ) 2x1.5V batteries type AAA LR03 ( <b>HT3305</b> )
<b>Auto Power OFF:</b>	after 10 seconds' idling
<b>Size (L x W x H):</b>	136×75×40mm ( <b>HT3300</b> ), 180×105×55mm ( <b>HT3305</b> )
<b>Weight (batteries included):</b>	140g ( <b>HT3300</b> ), 240g ( <b>HT3305</b> )



## Technical specifications

### Infrared temperature measurement

- Measuring range °C: -50°C ÷ 380°C (**HT3300**); -50°C ÷ 1000°C (**HT3305**)
- Measuring range °F: -58°F ÷ 716°F (**HT3300**); -58°F ÷ 1832°F (**HT3305**)
- Resolution: 0.1 °C - 0.1 °F
- Basic accuracy: ±1°C or ±1%reading
- Response time: <150ms
- Spectrum response: 8 ÷ 14µm
- D/S ratio: 12:1 (**HT3300**); 20:1 (**HT3305**)
- Emissivity range: 0.95 fixed (**HT3300**); 0.01 ÷ 1.00 (**HT3305**)

### Temperature measurement with K-type probe (**HT3305**)

- Measuring range °C: -50°C ÷ 1370°C
- Measuring range °F: -58°F ÷ 2498°F
- Resolution: 0.1 °C - 0.1 °F
- Basic accuracy: ±0.5% rdg (only device without probes)
- Response time: <150ms



## Included accessories

Batteries
K-type wire probe ( <b>HT3305</b> )
Transport bag
User manual

