

MERCURY

TRMS THERMAL MULTIMETER



I am a multimeter...



- › **Data logger function** and **real-time display of graphs** of measured data
- › **DC, AC TRMS, AC+DC TRMS voltage** up to **1000V**
- › **DC, AC TRMS, AC+DC TRMS current** up to **10A**
- › **DC, AC TRMS, AC+DC TRMS current by means of external clamp transducer**
- › Measurement of **frequency** and **duty cycle**
- › **Resistance** and buzzer for **continuity test**
- › Measurement of **capacitance**
- › **Diode test**
- › **Temperature** measurement by means of external K-type probe
- › **MAX/MIN/PEAK/HOLD/REL** functions
- › **Selectable sampling rate:** from 1s to 15min
- › Built-in white-light torch
- › TFT high-contrast colour display (320x240pxl)
- › **6000 measuring spots**
- › Measured **data saving** on micro SD card
- › **IP65** protection (**dust-tight and washdown protection**)
- › Auto power OFF

Why choose Mercury?

- › As a **single device**, I carry out all measurements normally performed with **multimeters and IR cameras**.
- › My **built-in IR camera** allows me to simply and quickly detect hot spots caused by **electrical problems or malfunctions**. Once repair works are completed, I can check whether the problem was solved or not
- › My **multimeter function** allows me to **troubleshoot installations**, measuring voltage and current.
- › I log to my **internal memory** the trend of **voltage and current** with **selectable sampling rate**.
- › I **save** and download onto the PC **IR images, measures and data recordings** to generate professional reports.
- › I connect **Bluetooth** to mobile devices. In this way, the operator can set the instrument on the measuring spot, move away from a possible dangerous area and read measures on the tablet/smartphone through the App HT MERCURY.
- › **CAT IV 600V/CAT III 1000V** allows me to be used in **industrial and domestic applications**.
- › I can be connected to a wide range of (rigid and flexible) clamp transducers for measuring **AC TRMS, DC, AC+DC current**.
- › I can be connected to a wide range of external K-type probes to measure **temperature**.
- › Thanks to my **colour display**, detecting possible problems through a thermographic image will be very easy and quick.
- › The two rechargeable **Li-ION batteries** provided allow for a **long continuous working duration**.
- › I am **portable, compact and resistant**. I am dust-tight and protected against water jets (**IP65**).



PV string Voc measurement



PV string Vmpp measurement




ISO 9000
 CALIBRATION
 CERTIFICATE
 INCLUDED

IR

10A

V

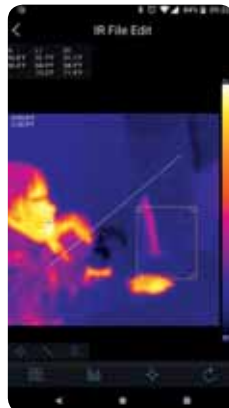


App HTMercury

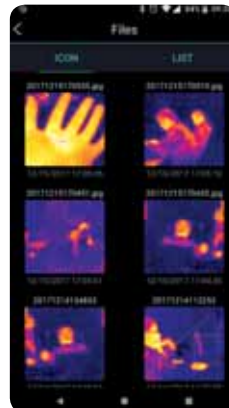
With **HTMercury APP** you can connect through **Bluetooth** to the **MERCURY** instrument in order to **save Multimeter** and **IR image** snapshots, **perform recordings**, **advanced analysis** and **create** and **share PDF reports**.



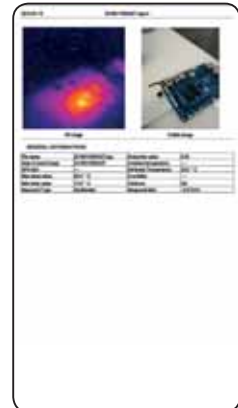
Function Data Logger



Advanced analysis



Images gallery



Report creation



...with a thermal soul!

I see what others can't see.

IR range from -20°C to 260°C.

- › My TFT 320x240 pixel **colour graphic display** allows an optimum display of images.
- › I am provided with an infrared sensor with **80x80** pixel resolution and **0,1°C sensitivity**, which allows me - from a safe distance - to precisely pick the spot where a problem is present, displaying and highlighting possible anomalous temperature values due to electric or mechanical malfunctions (high-voltage devices, transformers, motors, bearings, terminals, connectors, fuses, insulating devices and switches, etc.).

Photovoltaic installations? I see anything.

Reliable current and voltage measurements.

In a photovoltaic string, I can measure **voltage and current (fully safely)** thanks to my clamp transducer), immediately detecting any problem in the system. I measure:

- › Open-circuit string voltage (**Voc**)*;
- › String operating voltage (**Vmpp**)*;
- › The current provided by the string in operating conditions (**Impp**), allowing the operator to check that, from string to string, readings do not differ by more than 5%;
- › The status of filter capacitors found in the inverter (one of the most critical elements);
- › The status of locking and by-pass diodes;
- › I **thermographically analyze** photovoltaic modules in order to search for the presence of **overheated modules or cells**.

Measuring current*? Couldn't be any easier!

Accurate DC/AC and AC+DC TRMS current measurements.

- › I measure current even **without breaking the circuit** to serially connect the multimeter.
- › By using AC/DC transducers, I can measure currents in **TRMS AC+DC** mode and also provide values only from DC and AC components.
- › The measuring range virtually becomes unlimited: from mA to kA. The sensitivity/full range is only determined by the type of transducer connected.
- › The current transducer is connected to the same inputs used for measuring voltage (protected even if no fuses are used), thus **protecting the instrument from any possible wrong connection**.
- › The transducer may also be placed in very **uncomfortable positions** and then be connected, through its long connection cable, to the instrument for a **comfortable reading** of the value of current on the display.

I sure can keep a distance.

Bluetooth connection with mobile devices.

- › I am able to **connect Bluetooth** to any tablet and smartphone through the App HT MERCURY.
- › I am provided with a **micro SD card** to save measures and thermographic images.
- › The App HT MERCURY displays in real time and saves the recordings onto tablets and smartphones (snapshots).
- › I create, save and record reports with thermographic images through the App HT MERCURY in order to professionally validate the operator's job.

An excellent memory.

Data saving onto micro SD card.

- › I am a **data logger** saving and displaying **graphs and recordings** in the **internal memory**.

* Through external transducer.



PV string Impp measurement.



PV field thermography.



AC current measurement.



AC+DC current recording.



AC voltage measurement.



Switchboard thermography.



AC leakage measurement.



AC+DC current measurement comparison: 3.9A with RMS clamp, 4.7A with TRMS clamp, 6.1A with AC+DC TRMS clamp.

Provided accessories

- **F3000U** Flexible clamp with full scale 30/300/3000A AC
- **4413-2** Couple of red/black 4mm, 90° professional test leads
- **BATMCY** Spare part Li-ION battery 7.4V 1500mAh
- **A0MCY** Adapter multiplug for MERCURY with base charger
- Micro SD card 8GB, 10x
- **B0MCY** Carrying case
- Alkaline battery type AAA IEC LR03, 2pcs
- Type K bead probe + adapter
- User manual
- Calibration certificate ISO9000

The accessories provided may vary according to the country.

Technical Specifications

DC voltage

Measuring range: 0.1mV ÷ 1000V
Resolution: 0.1mV ÷ 1V
Basic accuracy: $\pm(0.2\% \text{reading} + 5 \text{digits})$

AC TRMS, AC+DC TRMS voltage

Measuring range: 1mV ÷ 1000V
Frequency range: 50Hz ÷ 1kHz
Resolution: 1mV ÷ 1V
Basic accuracy AC voltage: $\pm(0.8\% \text{reading} + 5 \text{digits})$
Basic accuracy AC+DC voltage: $\pm(2.0\% \text{reading} + 20 \text{digits})$

AC TRMS current with flexible clamp F3000U

Measuring range: 0.01A ÷ 3000A
Basic resolution: 0.01A ÷ 1A
Frequency range: 50Hz ÷ 1kHz
Accuracy: $\pm(1.0\% \text{reading} + 5 \text{digits})$

DC current

Measuring range: 0.1µA ÷ 10A
Resolution: 0.1µA ÷ 0.01A
Accuracy: $\pm(1.0\% \text{reading} + 3 \text{digits})$

AC, AC+DC current

Measuring range: 0.1µA ÷ 10A
Basic resolution: 0.1µA ÷ 0.01A
Frequency range: 50Hz ÷ 1kHz
Basic accuracy: $\pm(1.2\% \text{reading} + 5 \text{digits})$

Resistance and Continuity test

Measuring range: 0.1Ω ÷ 60MΩ
Resolution: 0.1Ω ÷ 0.01MΩ
Basic accuracy: $\pm(0.5\% \text{reading} + 5 \text{digits})$
Buzzer test: $R < 50\Omega$

Frequency (electronic circuits)

Measuring range: 0.01Hz ÷ 10MHz
Resolution: 0.01Hz ÷ 0.01MHz
Basic accuracy: $\pm(0.09\% \text{reading} + 5 \text{digits})$

Frequency (electronic circuits)

Measuring range: 40Hz ÷ 10kHz
Resolution: 0.01Hz ÷ 0.001kHz
Accuracy: $\pm 0.5\% \text{reading}$

Duty Cycle

Measuring range: 0.1% ÷ 99.9%
Resolution: 0.1%
Accuracy: $\pm(1.2\% \text{reading} + 2 \text{digits})$

Diode test

Maximum test current: 1.5mA

Optional accessories

- **HT96U*** Standard clamp with full scale 1/100/1000A AC and Hypertac connector
- **HT97U*** Rigid standard clamp with full scale 10/100/1000A AC and Hypertac connector
- **HT98U*** Standard clamp with full scale 1000A DC and Hypertac connector
- **HT4006** Standard clamp with full scale 40/400A AC/DC and banana connectors
- **NOCANBA** Adapter for clamp connection with Hypertac connector

* Adapter NOCANBA necessary.

Temperature with K-type probe

Measuring range: -40°C ÷ 1000°C / -40°F ÷ 1800°F
Resolution: 0.1°C ÷ 1°C / 0.1°F ÷ 1°F
Accuracy: $1.5\% \text{reading} + 3\text{°C} / 1.5\% \text{reading} + 5.4\text{°F}$

Capacitance

Measuring range: 0.01nF ÷ 6000µF
Resolution: 0.01nF ÷ 1µF
Basic accuracy: $\pm(1.2\% \text{reading} + 8 \text{digits})$

Datalogger function

Max number of recordings which can be saved in the internal memory: 16
Selectable sampling interval: 1s ÷ 15min
Max selectable duration of recordings: 1s ÷ 10h

IR camera function

Sensor resolution: 80 x 80pxl
Temperature measuring range: -20°C ÷ 260°C / -4°F ÷ 302°F
Sensitivity: $< 0.1\text{°C} (@ 30\text{°C})$
Visual range (FOV): 21° x 21°
Focusing / Lens: automatic / 7mm
Image frequency: 50Hz

General specifications

General characteristics

Instrument safety: IEC/EN61010-1
EMC: IEC/EN 61326-1
Insulation: double insulation
Pollution level: 2
Measurement category: CAT IV 600V, CAT III 1000V
Functions: Data HOLD, MAX/MIN/PEAK, REL, Laser, Bluetooth, LED illuminator
Memory for data saving: micro SD card, BMP format

Mechanical characteristics

Size (L x W x H): 185 x 75 x 55mm
Weight (batteries included): 555g
Mechanical protection: IP65


Power supply

Battery type: 1x7.4V rechargeable Li-ION battery, 2300mAh
Auto power off: 15, 30, 60min (selectable)


Display

Type of display: 4 dgt LCD, max 6000 dots, decimal sign, point
backlight and bargraph, indication of polarity
Updating frequency: 3 times/s
Conversion: TRMS

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Services d'EURO-INDEX

EURO-INDEX est un fabricant, importateur et distributeur de diverses marques A dans le domaine des instruments de test et de mesure. Nous fournissons également une large gamme de services pour optimiser l'utilisation de ces instruments dans vos activités. Ces services comprennent naturellement l'entretien, la réparation et l'étalonnage des instruments, mais nous proposons aussi une assistance sous forme de formation via notre EURO-INDEX Academy et la location d'instruments.

Centre de Service Agréé

EURO-INDEX est un Centre de Service Agréé pour toutes les marques représentées. Cela signifie que vos instruments sont pris en charge par des techniciens formés par le fabricant et disposant des outils et logiciels adéquats. Seules des pièces d'origine sont utilisées et la garantie de votre instrument, ainsi que les certifications (ATEX, EN50379, etc.) restent intactes.

Laboratoire de maintenance et de calibrage

Le laboratoire des Pays-Bas est accrédité RvA selon la norme EN-ISO/IEC 17025. Cette accréditation est valable pour différentes grandeurs, telles que spécifiées dans le champ d'application associé au numéro d'accréditation K105. Les certificats de calibrage RvA sont acceptés à l'international et équivalents à ceux de BELAC.



Service Mobile

Outre les laboratoires d'étalonnage fixes de Zaventem et de Capelle aan den IJssel, nous disposons également d'un laboratoire itinérant appelé "Service mobile". Nos services peuvent venir vers vous, en offrant une qualité équivalente.

MQS®

MQS® est une formule d'entretien exclusive comportant un entretien et un calibrage périodiques de vos instruments de mesure à un coût fixe et faible. Via un portail Web gratuit (monmq.be), vous avez toujours accès à vos certificats de calibrage.

Location d'instruments de mesure

- Vaste assortiment
- Précision démontrable par le certificat d'étalonnage actuel
- Conseils avisés
- Les instruments sont livrés avec leurs accessoires

EURO-INDEX Academy

- Formations et séminaires
- Vidéos de démonstration et d'instruction
- Notes d'application



Comptoir de service



Entretien, réparation et calibrage



Formations et séminaires



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