1. ELECTRICAL SPECIFICATIONS

Accuracy calculated as ±[%reading + (num dgt * resolution)] ta 18°C ÷ 28°C, <75%RH

DC VOLTAGE

Range	Resolution	Accuracy	Input impedance	Overload protection
600.0mV	0.1mV	±(0.09%rdg+5dgt)	>10MΩ	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V			
600.0V	0.1V	±(0.2%rdg+5dgt)		
1000V	1V			

AC TRMS VOLTAGE

Range	Resolution	Accuracy (*)		Overload protection
		50Hz ÷ 60Hz	61Hz ÷ 1kHz	
6.000V	0.001V	±(0.8%rdg+5dgt)	±(2.4%rdg+5dgt)	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

(*) Accuracy specified from 5% to 100% of measurement range and sinusoidal waveform ; Input impedance: >9MΩ
Accuracy PEAK function: ±10%rdg, PEAK response time: 1ms
For not sinusoidal waveforms the accuracy is: ±(10%rdg+10dgt)
NCV sensor for AC voltage detection: LEN on for phase-PE voltage within 100V and 1000V, 50/60Hz

AC+DC TRMS VOLTAGE

Range	Resolution	Accuracy (*) 50Hz ÷ 1kHz	Input impedance	Overload protection
6.000V	0.001V	±(2.4%rdg+20dgt)	>10MΩ	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

DC CURRENT

Range	Resolution	Accuracy	Overload protection
600.0µA	0.1µA	±(0.9%rdg+5dgt)	Fast Fuse 800mA/1kV (inputs mA,µA)
6000µA	1µA		
60.00mA	0.01mA		
600.0mA	0.1mA	±(0.9%rdg+8dgt)	
10.00A	0.01A	±(1.5%rdg+8dgt)	Fast Fuse 10A/1kV (input 10A)

AC TRMS CURRENT

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Overload protection
600.0µA	0.1µA	±(1.2%rdg+5dgt)	Fast Fuse 800mA/1kV (inputs mA, µA)
6000µA	1µA		
60.00mA	0.01mA		
600.0mA	0.1mA		
10.00A	0.01A	±(1.5%rdg+5dgt)	Fast Fuse 10A/1kV (input 10A)

(*) Accuracy specified from 5% to 100% of measurement range and sinusoidal waveform
Accuracy PEAK function: ±10%rdg, PEAK response time: 1ms;
For not sinusoidal waveforms the accuracy is: ±(10%rdg+10dgt)
AC+DC TRMS Current: accuracy (50Hz÷1kHz): ±(3.0%reading + 20dgt)

DC CURRENT WITH STANDARD TRANSDUCERS CLAMPS

Range	Output ratio	Resolution	Accuracy (*)	Overload protection
1000mA	1000mV/1000mA	1mA	±(0.8%rdg + 5dgt)	1000VDC/ACrms
10A	100mV/1A	0.01A		
40A (**)	10mV/1A	0.01A		
100A	10mV/1A	0.1A		
400A (**)	1mV/1A	0.1A		
1000A	1mV/1A	1A		

(*) Accuracy of the only instrument without clamp; (**) With transducer clamp HT4006

AC, AC+DC TRMS CURRENT WITH STANDARD TRANSDUCERS CLAMPS

Range	Output ratio	Resolution	Accuracy (*)		Overload protection
			(50Hz ÷ 60Hz)	(61Hz ÷ 1kHz)	
1000mA	1V/1mA	1mA	±(0.8%rdg +5dgt)	±(2.4%rdg+5dgt)	1000VDC/ACrms
10A	100mV/1A	0.01A			
40A (**)	10mV/1A	0.01A			
100A	10mV/1A	0.1A			
400A (**)	1mV/1A	0.1A			
1000A	1mV/1A	1A			

(*) Accuracy of the only instrument without clamp; (**) With transducer clamp HT4006

AC TRMS CURRENT WITH FLEXIBLE CLAMP (F3000U)

Range	Output ratio	Resolution	Accuracy (*)		Overload protection
			(50Hz ÷ 60Hz)	(61Hz ÷ 1kHz)	
30A	100mV/1A	0.01A	±(0.8%rdg+5dgt)	±(2.4%rdg+5dgt)	1000VDC/ACrms
300A	10mV/1A	0.1A			
3000A	1mV/1A	1A			

(*) Accuracy of the only instrument without clamp; Accuracy specified from 5% to 100% of measurement range

DIODE TEST

Range	Test current	Open voltage
	<1.5mA	3.3VDC

FREQUENCY (Electrical circuits)

Range	Resolution	Accuracy	Overload protection
40.00Hz ÷ 10kHz	0.01Hz ÷ 0.001kHz	±0.5%rdg	1000VDC/ACrms

Sensitivity: 2Vrms

FREQUENCY (Electronic circuits)

Range	Resolution	Accuracy	Overload protection
60.00Hz	0.01Hz	±(0.09%rdg+5dgt)	1000VDC/ACrms
600.0Hz	0.1Hz		
6.000kHz	0.001kHz		
60.00kHz	0.01kHz		
600.0kHz	0.1kHz		
1.000MHz	0.001MHz		
10.00MHz	0.01MHz		

Sensitivity: >2Vrms (@ 20% ÷ 80% duty cycle) and f<100kHz; >5Vrms (@ 20% ÷ 80% duty cycle) and f>100kHz

DUTY CYCLE

Range	Resolution	Accuracy	Overload protection
5.0% ÷ 95.0%	0.1%	±(1.2%rdg+2dgt)	1000VDC/ACrms

Pulse frequency range: 40Hz ÷ 10kHz, Impulse amplitude: ±5V (100µs ÷ 100ms)

RESISTANCE AND CONTINUITY TEST

Range	Resolution	Accuracy	Buzzer	Overload protection
600.0Ω	0.1Ω	±(0.5%rdg+10dgt)	<50Ω	1000VDC/ACrms
6.000kΩ	0.001kΩ	±(0.5%rdg+5dgt)		
60.00kΩ	0.01kΩ			
600.0kΩ	0.1kΩ			
6.000MΩ	0.001MΩ			
60.00MΩ	0.01MΩ	±(2.5%rdg+10dgt)		

CAPACITANCE

Range	Resolution	Accuracy	Overload protection
60.00nF	0.01nF	±(1.5%rdg + 20dgt)	1000VDC/ACrms
600.0nF	0.1nF	±(1.2%rdg + 8dgt)	
6.000µF	0.001µF	±(1.5%rdg + 8dgt)	
60.00µF	0.01µF	±(1.2%rdg + 8dgt)	
600.0µF	0.1µF	±(1.5%rdg + 8dgt)	
6000uF	1uF	±(2.5%rdg + 20dgt)	

TEMPERATURE WITH TYPE K PROBE

Range	Resolution	Accuracy (*)	Overload protection
-40°C ÷ 600°C	0.1°C	±(1.5%rdg+3°C)	1000VDC/ACrms
600°C ÷ 1000°C	1°C		
-40°F ÷ 600°F	0.1°F	±(1.5%rdg+5.4°F)	
600°F÷ 1800°F	1°F		

(*) Accuracy referred to instrument without probe
Specified accuracy with stable environmental temperature at ±1°C, For long-lasting measurements, reading increases by 2°C

INFRARED TEMPERATURE

Detector type	UFPA (80x80pxl, 34µm)
Spectral range	8 ÷14µm
Field of View (FOV) / Lens	21° x 21° / 7.5mm
IFOV (@1m)	4.53mrad
Thermal sensitivity	<0.1 °C @ 30°C (86°F) / 100mK
Focusing	Automatic
Minimum focal distance	0.5m
Image frequency	50Hz
Temperature unit	°C, °F, K
Colour palettes	4 (Iron, Rainbow, Grey, Grey Inverted)
Laser beam	Class 2 according with IEC 60825-1
Integrated illuminator	White LED light
Emissivity correction	0.01 ÷ 1.00
Measurement cursors	3 (Fixed, Max, Min)
Temperature range	-20°C ÷ 260°C (-4°F ÷ 500°F)
Accuracy	±3°C(5.4°F) or ±3%rdg (@ env temp:10°C÷35°C,object temp >0°C)

3. GENERAL SPECIFICATIONS

Display:
- Colour TFT, 6000 counts, sign, decimal point and bargraph
- Automatic polarity indication
- "**OL**" over range indication
- Response time: 3/s
- Conversion: TRMS

Features:
- Data HOLD
- MAX/MIN/PEAK (1ms)
- RANGE
- REL
- DATA LOGGER (internal memory): max 16 recordings, sample interval: 1s ÷ 15min, recording duration max 10 hours
- Fuse protection: F10A/1000V, 10 x 38mm (input **10A),** F800mA/1000V, 6 x 32mm (input **mAμA**)
- Laser beam
- White LED illuminator
- MEMORY: saved screenshots/pics in a micro SD card, BMP format, ca 23kscreenshots (@ 8GB card)
- Bluetooth connection (BLE 4.0) for connection to mobile devices (by means **HTMercury** APP)
- Auto Power OFF after 15, 30, 60min of idleness (disable)

Environmental conditions:
- Operating Temperature/Humidity: 5°C ÷ 40°C (41°F ÷ 104°F), <80%RH
- Storage Temperature/Humidity: -20°C ÷ 60°C (-4°F ÷ 140°F, <80%RH

General informations:
- Altitude max of use: 2000m
- Pollution degree: 2
- Insulation: double insulation

Mains supply:
- 1x7.4V rechargeable Li-ION battery, 1500mAh
- Battery rechargeable adapter: 100/240VAC, 50/60Hz, 12VDC, 3A
- Recharging time: ca 2 hours
- Battery life: ca 8hours (Bluetooth inactive), ca 7hours (Bluetooth active)

Mechanical specifications
- Dimensions ((L x W x H): 190 x 75 x 55mm
- Weight (included battery) : 555g
- Mechanical protection : IP65

Reference guidelines:
- Safety : IEC/EN61010-1
- EMC : IEC/EN61326-1
- Measurement category : CAT IV 600V – CAT III 1000V

This product conforms to the prescriptions of the European directive on low voltage 2014/35/EU and to EMC directive 2014/30/EU
This product conforms to the prescriptions of the European directive 2011/65/EU (RoHS) and the European directive 2012/19/EU (WEEE)