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	±(0.1%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)	
600.0mV	0.1mV	±(0.9%rdg+5dgt)	±(3.0%rdg+5dgt)	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

(*) Accuracy specified from 5% to 100% of measurement range, Input impedance: >10MΩ,
Response time PEAK function: >1ms, Accuracy PEAK function: ±10%rdg

AC+DC TRMS VOLTAGE

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Input impedance	Overload protection
6.000V	0.001V	±(3.0%rdg+20dgt)	>10MΩ	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

DC/AC TRMS WITH LOW IMPEDANCE (LoZ)

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Input impedance	Overload protection
6.000V	0.001V	±(3.0%rdg+20dgt)	ca 3kΩ	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

(*) Accuracy specified from 5% to 100% of measurement range
Fir not sinusoidal waveforms the accuracy is ±(10.0%rdg + 10dgt)

DC CURRENT

Range	Resolution	Accuracy	Overload protection
600.0µA	0.1µA	±(0.9%rdg+5dgt)	Fast Fuse 0.8A/1kVAC/DC (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/1kVAC/DC (input 10A)

AC TRMS CURRENT

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Overload protection
600.0µA	0.1µA	±(1.2%rdg+5dgt)	Fast Fuse 0.8A/1kVAC/DC (inputs mA, µA)
6000µA	1µA		
60.00mA	0.01mA		
600.0mA	0.1mA		
10.00A	0.01A	±(1.5%rdg+5dgt)	Fast Fuse 10A/1kVAC/DC (input 10A)

(*)Accuracy specified from 5% to 100% of measurement range ; Response time PEAK function: >1ms, Accuracy PEAK function: ±10%rdg ; AC+DC TRMS Current: accuracy (50Hz÷1kHz): ±(3.0%rdg + 20dgt)

DC CURRENT WITH TRANSDUCER CLAMPS

Range	Output ratio	Resolution	Accuracy (*)	Overload protection
1000mA	1000mV/1000mA	1mA	±(1.5%rdg + 6dgt)	1000VDC/ACrms
10A	100mV/1A	0.01A		
30A				
40A (**)	10mV/1A		±(1.5%rdg + 26dgt) (***)	
100A		0.1A	±(1.5%rdg + 6dgt)	
300A				
400A (**)	1mV/1A	1A	±(1.5%rdg + 26dgt) (***)	
1000A			±(1.5%rdg + 6dght)	

(*) Accuracy referred to only instrument without transducer ; (**) With HT4006 transducer clamp ; (***) Accuracy instrument + clamp

AC TRMS CURRENT WITH TRANSDUCER CLAMPS

Range	Output ratio	Resolution	Accuracy (*)	Overload protection
1000mA	1000mV/1000mA	1mA	±(2.5%rdg + 10dgt)	1000VDC/ACrms
10A	100mV/1A	0.01A		
30A				
40A (**)	10mV/1A		±(3.5%rdg + 30dgt) (***)	
100A		0.1A	±(2.5%rdg + 10dgt)	
300A				
400A (**)	1mV/1A	1A	±(3.5%rdg + 30dgt) (***)	
1000A			±(2.5%rdg + 10dgt)	
3000A				

(*) Accuracy referred to only instrument without transducer ; Accuracy specified from 5% to 100% of the measuring range;
(**) With HT4006 transducer clamp ; (***) Accuracy instrument + clamp
For not sinusoidal waveforms accuracy is: ±(10.0%reading + 10dgt)
Accuracy PEAK function: ±(10%rdg+30dgt) , AC+DC TRMS Current: accuracy (50Hz÷1kHz): ±(3.0%reading + 20dgt

4-20mA% READINGS

Range	Resolution	Accuracy	Reading
-25% ÷ 125%	0.1%	±50dgt	0mA=-25%, 4mA=0%, 20mA=100%, 24mA=125%

DIODE TEST

Range	Max test current	Open voltage
	<1.5mA	3.2V

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RESISTANCE AND CONTINUITY TEST

Range	Resolution	Accuracy	Buzzer	Overload protection
600.0Ω	0.1Ω	±(0.8%rdg+10dgt)	<50Ω	1000VDC/ACrms
6.000kΩ	0.001kΩ	±(0.8%rdg+5dgt)		
60.00kΩ	0.01kΩ			
600.0kΩ	0.1kΩ			
6.000MΩ	0.001MΩ			
60.00MΩ	0.01MΩ	±(2.5%rdg+10dgt)		

FREQUENCY (Electrical circuits)

Range	Resolution	Accuracy	Sensitivity	Overload protection
40Hz ÷ 10kHz	0.01Hz÷0.001kHz	±(0.5%rdg)	2Vrms	1000VDC/ACrms

FREQUENCY (Electronic circuits)

Range	Resolution	Accuracy	Sensitivity	Overload protection
60.00Hz	0.01Hz	±(0.09%rdg+5dgt)	2Vrms min (20% < duty < 80%, <100kHz) 5Vrms min (20% < duty < 80%, >100kHz)	1000VDC/ACrms
600.0Hz	0.1Hz			
6.000kHz	0.001kHz			
60.00kHz	0.01kHz			
600.0kHz	0.1kHz			
1.000MHz	0.001MHz			

DUTY CYCLE

Range	Resolution	Accuracy	Overload protection
0.1 ÷ 99.9%	0.01%	±(1.2%rdg+2dgt)	1000VDC/ACrms

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

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)	
6.000mF	0.001mF	±(2.5%rdg+20dgt)	

TEMPERATURE WITH TYPE K PROBEK

Range	Resolution	Accuracy (*)	Overload protection
-40.0°C ÷ 600.0°C	0.1°C	±(1.5%rdg+3°C)	1000VDC/ACrms
600°C ÷ 1350°C	1°C		
-40.0°F ÷ 600.0°F	0.1°F	±(1.5%rdg+5.4°F)	
600°F ÷ 2462°F	1°F		

(*) Accuracy referred to instrument without probe

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2. GENERAL SPECIFICATIONS

Display:
- TFT LCD, colours, 4½ dgt, 6000 counts, decimal point and bargraph
- Automatic polarity indication
- Backlight
- "**OL**" over range indication
- Response time: 3/s
- Conversion: TRMS

Features:
- Data HOLD
- MAX/MIN/AVG
- PEAK (Voltage and Current) ; AC+DC feature
- Data Logger and Graph of measured parameters
- Internal memory for measurements, graphs and recordings
- Icons internal menu
- REL
- DC 4-20mA% current readings

Memory:
- Measures: max 2000 snapshots; Graphs: max 50 ; Recordings: max 128 of 20000 points

Power supply:
- 1 x 7.2V Li-ION rechargeable battery
- Battery life: ca 15 hours
- Adapter battery charger: 100/240VAC, 50/60Hz, 10VDC, 1A
- Auto Power OFF programmable up to 60min of idleness

Environmental conditions:
- Operating Temperature/Humidity: 5°C ÷ 40°C, <80%RH
- Storage Temperature/Humidity: -20°C ÷ 60°C, <50%RH
- Altitude max of use: 2000m

Mechanica specifications
- Dimensions (L x W x H): 175 x 85 x 55mm
- Weight (included battery): 400g
- Mechanical protection: IP40

Reference guidelines:
- Safety : IEC/EN61010-1
- EMC : IEC/EN61326-1
- Pollution degree: 2
- Insulation: double insulation
- Measurement category: CAT IV 600V – CAT III 1000V

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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)