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
400.0mV	0.1mV	±(1.2%rdg+4dgt)	10MΩ	1500VDC
4.000V	0.001V			
40.00V	0.01V			
400.0V	0.1V			
1500V	1V	±(1.5%rdg+2dgt)		

AC TRMS VOLTAGE

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Input impedance	Overload protection
4.000V	0.001V	±(1.2%rdg+10dgt)	10MΩ	1000VDC/ACrms
40.00V	0.01V	±(1.5%rdg+3dgt)		
400.0V	0.1V			
1000V	1V	±(2.0%rdg+4dgt)		

(*) Accuracy specified from 5% to 100% of the measuring range; Frequency range: 50Hz ÷ 1kHz (sinusoidal waveform)
For not sinusoidal waveforms the accuracy is: ±(10.0%rdg + 10dgt) (50Hz÷60Hz)

DC/AC TRMS VOLTAGE WITH LOW IMPEDANCE (LoZ)

Range	Resolution	Accuracy (*) (50Hz ÷ 1kHz)	Input impedance	Overload protection
4.000V	0.001V	±(3.0%rdg+40dgt)	approx 3kΩ	600VDC/ACrms
40.00V	0.01V			
400.0V	0.1V			
600V	1V			

(*) Accuracy specified from 5% to 100% of the measuring range; Frequency range: 50Hz ÷ 1kHz (sinusoidal waveform)
For not sinusoidal waveforms the accuracy is: ±(10.0%rdg + 10dgt) (50Hz÷60Hz)

DIODE TEST

Range	Resolution	Accuracy	Max open voltage	Overload protection
→|←	1mV	±(10%rdg+5dgt)	<3VDC	250VDC/ACrms

DC CURRENT WITH TRANSDUCER CLAMPS

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

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

AC TRMS CURRENT WITH TRANSDUCER CLAMPS

Range	Output ratio	Resolution	Accuracy (*)	Overload protection
1000mA	1V/1A	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 clamp; Accuracy specified from 5% to 100% of the measuring range
(**) With HT4006 transducer; (***) Accuracy instrument + clamp ; For not sinusoidal waveforms the accuracy is: ±(10.0%rdg + 10dgt)

RESISTANCE AND CONTINUITY TEST

Range	Resolution	Accuracy	Buzzer	Overload protection
400.0Ω	0.1Ω	±(1.2%rdg+4dgt)	<50Ω	250VDC/ACrms
4.000kΩ	0.001kΩ	±(1.0%rdg+2dgt)		
40.00kΩ	0.01kΩ	±(1.2%rdg+2dgt)		
400.0kΩ	0.1kΩ			
4.000MΩ	0.001MΩ			
40.00MΩ	0.01MΩ	±(2.0%rdg+3dgt)		

FREQUENCY (Electrical circuit)

Range	Resolution	Accuracy	Overload protection
10Hz ÷ 10kHz	0.001Hz ÷ 0.01kHz	±(1.5%rdg + 5dgt)	600VDC/ACrms

FREQUENCY (Electronic circuit)

Range	Resolution	Accuracy	Overload protection
9.999Hz	0.001Hz	±(1.5%rdg + 5dgt)	250VDC/ACrms
99.99Hz	0.01Hz		
999.9Hz	0.1Hz	±(1.2%rdg + 3dgt)	
9.999kHz	0.001kHz		
99.99kHz	0.01kHz		
999.9kHz	0.1kHz		
9.999MHz	0.001MHz	±(1.5%rdg + 4dgt)	
10.00MHz	0.01MHz		

Sensitivity: >8Vrms
In AC voltage frequency range: 10Hz ÷10kHz, sensitivity >15Vrms

DUTY CYCLE

Range	Resolution	Accuracy
0.5% ÷ 99%	0.1%	±(1.2%rdg+2dgt)

Pulse frequency range: 5Hz ÷ 10kHz, Pulse duration: 100µs ÷ 100ms
In AC voltage frequency range: 10Hz ÷10kHz, sensitivity >15Vrms

CAPACITANCE (Autorange)

Range	Resolution	Accuracy	Overload protection
40.00nF	0.01nF	±(5.0%rdg + 7dgt)	250VDC/ACrms
400.0nF	0.1nF	±(3.0%rdg + 5dgt)	
4.000µF	0.001µF		
40.00µF	0.01µF		
400.0µF	0.1µF	±(5.0%rdg + 5dgt)	
4.000mF	0.001mF	±(10%rdg)	
40.00mF	0.01mF		

TEMPERATURE WITH TYPE K PROBE (Autorange)

Range	Resolution	Accuracy (*)	Overload protection
-20°C ÷ 760°C	1°C	±(3.0%rdg + 5°C)	250VDC/ACrms
-4°F ÷ 1400°F	1°F	±(3.0%rdg + 9°F)	

(*) Accuracy referred to instrument without probe

2. GENERAL SPECIFICATIONS

Display:

- LCD, 4 dgt 4000counts, decimal point and bargraph
- Automatic polarity indication
- Backlight
- "**OL**" over range indication
- Response time: 3/s
- Conversion: TRMS

Features:

- Data HOLD
- RANGE
- REL

Power supply:

- 1 x 9V alkaline batteries type IEC 6F22
- Battery life: ca 45h (backlight ON), ca 60h (backlight OFF)
- Auto Power OFF after 15 minutes of idleness

Mechanical specifications

- Dimensions (L x W x H): 175 x 85 x 55mm
- Weight (included batteries): 360g
- Mechanical protection: IP40

Environmental conditions:

- Working temperature: 0°C ÷ 40°C
- Working humidity: <70%RH
- Storage temperature: -20°C ÷ 60°C
- Storage humidity: <80%RH
- Altitude max of use: 2000m

Reference guidelines:

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

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)