



1. ELECTRICAL SPECIFICATIONS

Accuracy calculated as $\pm[\% \text{reading} + (\text{num dgt} * \text{resolution})]$ ta $18^{\circ}\text{C} \div 28^{\circ}\text{C}$, $<75\% \text{HR}$

DC VOLTAGE

Range	Resolution	Accuracy	Input impedance	Overload protection
600.0mV	0.1mV	$\pm(1.0\% \text{rdg} + 2 \text{dgt})$	10M Ω	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

AC TRMS VOLTAGE

Range	Resolution	Accuracy (*) 50Hz $\div$ 60Hz	Accuracy (*) 61Hz $\div$ 400Hz	Overload protection
6.000V	0.001V	$\pm(1.0\% \text{rdg} + 8 \text{dgt})$	$\pm(2.0\% \text{rdg} + 8 \text{dgt})$	1000VDC/ACrms
60.00V	0.01V			
600.0V	0.1V			
1000V	1V	$\pm(1.2\% \text{rdg} + 3 \text{dgt})$	$\pm(2.5\% \text{rdg} + 3 \text{dgt})$	

Input impedance: 10M Ω , Crest factor: ≤ 3 (up to 500V), ≤ 1.5 (up to 1kV)

(*) Accuracy specified from 5% to 100% of measurement range

DC CURRENT

Range	Resolution	Accuracy	Overload protection
600.0 μ A	0.1 μ A	$\pm(1.0\% \text{rdg} + 3 \text{dgt})$	Fast Fuse 0.8A/1kVAC/DC (inputs mA, μ A)
6000 μ A	1 μ A		
60.00mA	0.01mA		
600.0mA	0.1mA		
6.000A	0.001A	$\pm(1.5\% \text{rdg} + 3 \text{dgt})$	Fast Fuse 10A/1kVAC/DC (input 10A)
10.00A (*)	0.01A		

(*) 20A for max 30s with not declared accuracy

AC TRMS CURRENT

Range	Resolution	Accuracy (*) 40Hz $\div$ 400Hz	Overload protection
600.0 μ A	0.1 μ A	$\pm(1.5\% \text{rdg} + 3 \text{dgt})$	Fast Fuse 0.8A/1kVAC/DC (inputs mA, μ A)
6000 μ A	1 μ A		
60.00mA	0.01mA		
600.0mA	0.1mA		
6.000A	0.001A	$\pm(2.0\% \text{rdg} + 3 \text{dgt})$	Fast Fuse 10A/1kVAC/DC (inputs 10A)
10.00A (**)	0.01A		

(*) Accuracy specified from 5% to 100% of measurement range

(**) 20A for max 30s with not declared accuracy

DIODE TEST

Range	Max test current	Open volatge	Overload protection
	0.9mA	2.8V	1000VDC/ACrms

**RESISTANCE AND CONTINUITY TEST**

Range	Resolution	Accuracy	Open voltage	Buzzer	Overload protection
600.0Ω	0.1Ω	±(1.0%rdg+4dgt)	2.8V	<100Ω	1000VDC/ACrms
6.000kΩ	0.001kΩ				
60.00kΩ	0.01kΩ				
600.0kΩ	0.1kΩ				
6.000MΩ	0.001MΩ	±(2.0%rdg+10dgt)			
60.00MΩ	0.01MΩ				

FREQUENCY (Electronic circuits)

Range	Resolution	Accuracy	Sensitivity	Overload protection
9.999Hz	0.001Hz	±(0.1%rdg+2dgt)	0.8Vrms min (20% < duty < 80%, <100kHz) 5Vrms min (20% < duty < 80%, >100kHz)	1000VDC/ACrms
99.99Hz	0.01Hz			
999.9Hz	0.1Hz			
9.999kHz	0.001kHz			
99.99kHz	0.01kHz			
999.9kHz	0.1kHz			
9.999MHz	0.001MHz			

FREQUENCY (Electrical circuits)

Range	Resolution	Accuracy	Sensitivity	Overload protection
10 ÷ 400Hz	0.001Hz	±(1.5%rdg+5dgt)	15Vrms 10Arms	1000VDC/ACrms

DUTY CYCLE

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

Pulse width: 100μs ÷ 100ms ; Frequency: 5Hz ÷ 150kHz

CAPACITANCE

Range	Resolution	Accuracy	Overload protection
40.00nF	0.01nF	$\pm(3.5\%rdg+50dgt)$	1000VDC/ACrms
400.0nF	0.1nF	$\pm(3.5\%rdg+4dgt)$	
4.000μF	0.001μF		
40.00μF	0.01μF		
400.0μF	0.1μF		
1000μF	1μF	$\pm(5.0\%rdg+5dgt)$	

TEMPERATURE WITH TYPE K PROBE

Range	Resolution	Accuracy (*)	Overload protection
-45°C ÷ 400°C	0.1°C	±(3.5%rdg+5°C)	1000VDC/ACrms
401°C ÷ 750°C	1°C		
-50°F ÷ 752°F	0.1°F	±(3.5%rdg+9°F)	
752°F ÷ 1382°F	1°F		

(*) Accuracy referred to instrument without probe



2. GENERAL SPECIFICATIONS

Display:

- LCD, 3½dgt, 6000 counts, sign, decimal point and bargraph
- Automatic polarity indication
- Backlight
- “OL” over range indication
- Response time: 2/s

Features:

- Data HOLD
- MAX/MIN
- RANGE
- REL
- Auto Power OFF after 15 minutes of idleness

Low battery indication:

- The symbol “” appears when the battery voltage is low

Environmental conditions:

- Operating Temperature/Humidity: 5°C ÷ 40°C, <80%HR
- Storage Temperature/Humidity: -20°C ÷ 60°C, <80%HR

General informations:

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

Power supply:

- 1x9V alkaline battery NEDA 1604 IEC 6F22

Dimensions (L x W x H)

- 175 x 85 x 55mm

Weight (included battery)

- 390g

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 2006/95/EEC and to EMC directive 2004/108/EEC

This product conforms to the prescriptions of the European directive 2011/65/EU (RoHS) and the European directive 2012/19/EU (WEEE)