



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	$\pm(0.9\% \text{rdg} + 5 \text{dgt})$	10M Ω	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V			
600.0V	0.1V			
1000V	1V	$\pm(1.2\% \text{rdg} + 5 \text{dgt})$		

AC TRMS VOLTAGE

Range	Resolution	Accuracy (*) 50Hz \div 1kHz	Accuracy (*) 1kHz \div 5kHz	Overload protection
600.0mV	0.1mV	$\pm(1.0\% \text{rdg} + 5 \text{dgt})$	$\pm(3.0\% \text{rdg} + 5 \text{dgt})$	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V		Not specified	
600.0V	0.1V			
1000V	1V			

(*) Accuracy specified from 5% to 100% of measurement range, Input impedance: 10M Ω ,

Response time PEAK function: $>1 \text{ms}$, Accuracy PEAK function: $\pm 10\% \text{rdg}$

Accuracy  function: $\pm(1.5\% \text{rdg} + 5 \text{dgt})$ ($f \leq 60 \text{Hz}$), $\pm(3.0\% \text{rdg} + 5 \text{dgt})$ ($60 \text{Hz} \leq f \leq 1 \text{kHz}$), not specified ($f: 1 \div 5 \text{kHz}$)

DC CURRENT

Range	Resolution	Accuracy	Overload protection
600.0 μA	0.1 μA	$\pm(1.5\% \text{rdg} + 5 \text{dgt})$	Fast Fuse 0.8A/1kVAC/DC (inputs mA, μA)
6000 μA	1 μA		
60.00mA	0.01mA		Fast Fuse 10A/1kVAC/DC (input 10A)
600.0mA	0.1mA		
10.00A	0.01A		


AC TRMS CURRENT

Range	Resolution	Accuracy (*) 50Hz \div 1kHz	Accuracy (*) 1kHz \div 5kHz	Overload protection
600.0 μA	0.1 μA	$\pm(2.5\% \text{rdg} + 5 \text{dgt})$	$\pm(3.5\% \text{rdg} + 5 \text{dgt})$	Fast Fuse 0.8A/1kVAC/DC (inputs mA, μA)
6000 μA	1 μA			
60.00mA	0.01mA		Not specified	Fast Fuse 10A/1kVAC/DC (input 10A)
600.0mA	0.1mA			
10.00A	0.01A			

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

Response time PEAK function: $>1 \text{ms}$, Accuracy PEAK function: $\pm 10\% \text{rdg}$

DIODE TEST

Range	Max test current	Open voltage	Overload protection
	$<1.5 \text{mA}$	2.8V	1000VDC/ACrms

4-20mA% READINGS

Range	Resolution	Accuracy	Readings
$-25\% \div 125\%$	0.1%	$\pm 50 \text{dgt}$	0mA=-25%, 4mA=0%, 20mA=100%, 24mA=125%

**RESISTANCE AND CONTINUITY TEST**

Range	Resolution	Accuracy	Open voltage	Buzzer	Overload protection
600.0Ω	0.1Ω	±(2.0%rdg+9dgt)	2.8V	<35Ω	1000VDC/ACrms
6.000kΩ	0.001kΩ	±(1.2%rdg+5dgt)			
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
60.000Hz	0.001Hz	±(1.0%rdg+2dgt)	>2.0Vrms min (20% < duty < 80%, <100kHz) 5Vrms min (20% < duty < 80%, >100kHz)	1000VDC/ACrms
600.00Hz	0.01Hz			
6.0000kHz	0.0001kHz			
60.000kHz	0.001kHz			
600.00kHz	0.01kHz			
6.0000MHz	0.0001MHz			
10.000MHz	0.001MHz			

FREQUENCY (Electrical circuits)

Range	Resolution	Accuracy	Sensitivity	Overload protection
40.00 ÷ 10.00kHz	0.01Hz	±(0.5%rdg)	15Vrms	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 ÷ 100kHz

CAPACITANCE

Range	Resolution	Accuracy	Overload protection
60.00nF	0.01nF	±(3.5%rdg+10dgt)	1000VDC/ACrms
600.0nF	0.1nF		
6.000μF	0.001μF	±(2.5%rdg+10dgt)	
60.00μF	0.01μF		
600.0μF	0.1μF		
6.000mF	0.001mF	±(3.5%rdg+10dgt)	

TEMPERATURE WITH TYPE K PROBE

Range	Resolution	Accuracy (*)	Overload protection
-40.0°C ÷ 600.0°C	0.1°C	±(2.0%rdg+3°C)	1000VDC/ACrms
600°C ÷ 760°C	1°C		
-58.0°F ÷ 600.0°F	0.1°F	±(2.0%rdg+5.5°F)	
600°F ÷ 1400°F	1°F		

(*) Accuracy referred to instrument without probe



2. GENERAL SPECIFICATIONS


Display:

- LCD, 3 ½ dgt (6000counts) and 4½dgt (60000 counts) decimal point and bargraph
- Automatic polarity indication
- Backlight
- "OL" over range indication
- Response time: 3/s

Features:

- Data HOLD, Auto HOLD
- MAX/MIN
- PEAK (Voltage and Current)
- RANGE
- REL
- DC 4-20mA% current readings
- 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:

- 4 x 1.5V alkaline batteries type AAA LR03

Dimensions (L x W x H)

- 175 x 85 x 55mm

Weight (included batteries)

- 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)