

## 1. ELECTRICAL SPECIFICATIONS

Accuracy is indicated as  $\pm [\%rdg + (\text{numbers of digits} \times \text{resolution})]$  at  $23^\circ\text{C} \pm 5^\circ\text{C}$ ,  $<80\%HR$

### DC VOLTAGE

Range	Resolution	Accuracy	Overload protection
60.00mV	0.01mV	$\pm(0.08\%rdg+10dgt)$	1000VDC/ACrms
600.0mV	0.1mV	$\pm(0.08\%rdg+2dgt)$	
6.000V	0.001V		
60.00V	0.01V		
600.0V	0.1V		
1000V	1V		

Input impedance:  $10M\Omega // <100pF$

### AC TRMS VOLTAGE

Range	Resolution	Accuracy (50Hz ÷ 1kHz)	Overload protection
60.00mV	0.01mV	$\pm(1.2\%rdg+5dgt)$	1000VDC/ACrms
600.0mV	0.1mV		
6.000V	0.001V	$\pm(0.8\%rdg+5dgt)$	
60.00V	0.01V		
600.0V	0.1V		
1000V	1V		

Input impedance:  $10M\Omega // <100pF$

For non-sinusoidal voltages add the herewith correction on accuracies:

Crest factor  $1.4 \div 2.0 \rightarrow$  add  $1.0\%rdg$

Crest factor da  $2.0 \div 2.5 \rightarrow$  add  $2.5\%rdg$

Crest factor da  $2.5 \div 3.0 \rightarrow$  add  $4.0\%rdg$

Max crest factor:  $3.0 (0 \div 3000 dgt)$ ;  $2.0 (3000 \div 5000 dgt)$ ;  $1.6 (5000 \div 6000 dgt)$

PEAK HOLD feature: specified accuracy  $\pm 150dgt$

### AC+DC TRMS VOLTAGE

Range	Resolution	Accuracy (50Hz ÷ 1kHz)	Overload protection
60.00mV	0.01mV	$\pm(2.0\%rdg+10dgt)$	1000VDC/ACrms
600.0mV	0.1mV		
6.000V	0.001V	$\pm(2.0\%rdg+5dgt)$	
60.00V	0.01V		
600.0V	0.1V		
1000V	1V		

Input impedance:  $10M\Omega // <100pF$

For non-sinusoidal voltages consider the indication of AC TRMS voltage

PEAK HOLD feature: specified accuracy  $\pm 150dgt$

### AUTO -V VOLTAGE (Voltage measurement with low impedance)

Range	Resolution	Accuracy (50Hz ÷ 1kHz)	Overload protection
600.0V DC	0.1V	$\pm(0.8\%rdg+3dgt)$	1000VDC/ACrms
1000V DC	1V		
600.0V AC	0.1V		
1000V AC	1V		

Input impedance: approx  $3k\Omega$

For non-sinusoidal voltages consider the indication of AC TRMS voltage





# HT401

Rel. 2.00 of 10/07/24

## Professional AC+DC TRMS multimeter

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### DC CURRENT

Range	Resolution	Accuracy	Overload protection
60.00mA	0.01mA	$\pm(0.8\%rdg+3dgt)$	Fuse 440mA/1kVAC/DC,10kA (input mA) Fuse 11A/1kVAC/DC,20kA (input A)
600.0mA	0.1mA		
6.000A	0.001A		
10.00A	0.01A		

### AC TRMS CURRENT

Range	Resolution	Accuracy (50Hz ÷ 1kHz)	Overload protection
60.00mA	0.01mA	$\pm(1.2\%rdg+3dgt)$	Fuse 440mA/1kVAC/DC,10kA (input mA) Fuse 11A/1kVAC/DC,20kA (input A)
600.0mA	0.1mA		
6.000A	0.001A		
10.00A	0.01A		

For non-sinusoidal current consider the indication of AC TRMS voltage  
PEAK HOLD feature: specified accuracy  $\pm 150dgt$

### AC+DC TRMS CURRENT

Range	Resolution	Accuracy (50Hz ÷ 1kHz)	Overload protection
60.00mA	0.01mA	$\pm(2.0\%rdg+5dgt)$	Fusibile 440mA/1kVAC/DC,10kA (ingresso mA) Fusibile 11A/1kVAC/DC,20kA (ingresso A)
600.0mA	0.1mA		
6.000A	0.001A		
10.00A	0.01A		

For non-sinusoidal current consider the indication of AC TRMS voltage  
PEAK HOLD feature: specified accuracy  $\pm 150dgt$

### RESISTANCE

Range	Resolution	Accuracy	Open voltage	Overload protection
600.0 $\Omega$	0.1 $\Omega$	$\pm(0.8\%rdg+5dgt)$	<2.5V	1000VDC/ACrms
6.000k $\Omega$	0.001k $\Omega$	$\pm(0.8\%rdg+2dgt)$	<0.6V	
60.00k $\Omega$	0.01k $\Omega$			
600.0k $\Omega$	0.1k $\Omega$			
6.000M $\Omega$	0.001M $\Omega$			
40.00M $\Omega$	0.01M $\Omega$	$\pm(1.0\%rdg+5dgt)$		

### CONTINUITY TEST

Range	Resolution	Accuracy	Overload protection
600.0 $\Omega$	0.1 $\Omega$	$\pm(0.8\%rdg+5dgt)$	1000VDC/ACrms

Max open voltage: 2.5V  
Max test current: approx 1mA  
Active buzzer: R <30 $\Omega$

### DIODE TEST

Range	Resolution	Accuracy	Open voltage	Overload protection
2.000V	1mV	$\pm(1.5\%rdg+2dgt)$	<2.5V	1000VDC/ACrms

Max test current: 0.4mA

### FREQUENCY

Range	Resolution	Accuracy	Overload protection
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## Professional AC+DC TRMS multimeter

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100.00Hz	0.01Hz	$\pm(0.1\%rdg+2dgt)$	1000VDC/ACrms
1000.0Hz	0.1Hz		
10.000kHz	0.001kHz		
100.00kHz	0.01kHz		

Minimum value read: 1Hz

Sensitivity: > 5.0Vp-p (ACV 1Hz ÷ 10kHz) ; > 10Vp-p (ACV 10kHz ÷ 100kHz) ; > 2mA<sub>p-p</sub> (AC mA) ; > 0.2A<sub>p-p</sub> (AC A)

### CAPACITANCE

Range	Resolution	Accuracy	Meas. Time	Overload protection
1.000μF	0.001μF	$\pm(1.2\%rdg+2dgt)$	<0.7s	1000VDC/ACrms
10.00μF	0.01μF			
100.0μF	0.1μF			
1.000mF	0.001mF			
10.00mF	0.01mF			
			<3s	

### TEMPERATURE WITH TYPE K PROBE

Range	Resolution	Accuracy (*)	Overload protection
-40.0°C ÷ 400.0°C	0.1°C	$\pm(1.0\%rdg+10dgt)$	1000VDC/ACrms
-40.0°F ÷ 752°F	0.1°F	$\pm(1.0\%rdg+18dgt)$	

(\*) Accuracy referred to the instrument without probe

## 2. GENERAL SPECIFICATIONS



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**Display:**

- LCD display, 4 digit with maximum reading 6000 counts with sign, decimal point and bargraph
- Automatic polarity indication
- Backlight
- "OL" over range indication

**Features:**

- Data HOLD
- MAX/MIN for maximum and minimum value
- PEAK for peak measurement
- VOLTSENSE for AC voltage detection without contact
- AC+DC for measurement of DC component overlapped to the alternate signal
- AUTO-V for AC/DC voltage measurement with low impedance
- RANGE for manual range selection
- REL for relative measurement
- Auto Power OFF after 20 minutes of idleness

**Low battery indication:**

- The symbol  appears when the battery voltage is low

**Environmental conditions:**

- Working temperature/humidity: -10 °C ÷ 50 °C, <80%HR
- Storage temperature/humidity: -20 °C ÷ 60 °C, <80%HR

**General information:**

- Max height of use: 2000m
- Pollution degree: 2
- Insulation: double insulation

**Power supply:**

- 1 x 9V alkaline battery type NEDA1604, JIS006P, IEC6F22

**Sizes:**

- 190(L)x94(W)x48(H) mm

**Weight (included batteries):**

- 460g

**Applied standards:**

- Safety: IEC/EN61010-1, UL61010-1
- 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**

