

ETHOS 5030 SPECIFICATION

General Specification

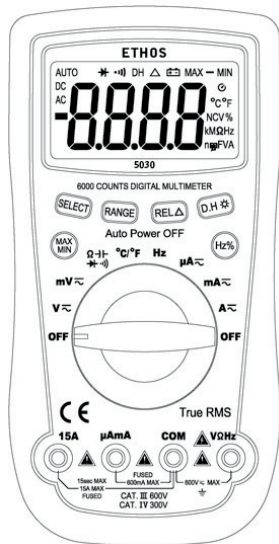
Display	LCD with a max. reading of 6000
Range control	Auto range & Manual range control
Polarity	Automatic negative polarity indication
Zero adjustment	Automatic
Over range indication	The "OL" or "-OL" display
Low battery indication	Display "🔋" sign
Data hold	Display "DH" sign
Relative measurement	Display "△" sign
Auto Power Off	When measurement exceeds 15 minutes without switching mode and pressing key, the meter will switch to standby mode. Press any key to exit standby mode. When restart the system, press and hold SELECT key to disable auto power off
Safety standards	CE EMC/LVD. CAT III 600V. CAT III 300V. The meter is up to the standards of IEC1010 Double Insulation, Pollution Degree 2, Overvoltage Category III
Operating environment	Temperature 32 to 104°F (0°C to 40°C), Humidity ≤ 80% RH.
Storage environment	Temperature -4 to 140°F (-20°C to 60°C), Humidity ≤ 90% RH.
Fuse	F0.8A 600V 5 x 20mm, F15A 600V 5 x 20mm
Power supply	9V battery (6F22)
Test lead probe	RE10, CATIII 600V / CATIII 300V, 15A, L=90cm
Dimension	177(H) x 92(W) x 40(D) mm
Weight	Approx. 320g (including battery)

ETHOS
Test Instruments

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Electrical Specification

Accuracies are \pm (% of reading + number in last digit) at $23 \pm 5^{\circ}\text{C}$, $\leq 75\%$ RH.

2.2.1 DC Voltage

Range	Accuracy	Resolution
60.00mV	$\pm (0.8\%+2)$	0.01mV
600.0mV	$\pm (0.5\%+2)$	0.1mV
6.000V		1mV
60.00V		10mV
600.0V		100mV
600V	$\pm (0.8\%+2)$	1V

Overload protection: 600V DC or AC rms

Impedance: $10\text{M}\Omega$, More than $100\text{M}\Omega$ on 60mV/600mV range

2.2.2 AC Voltage

Range	Accuracy	Resolution
60.00mV	$\pm (1.2\%+3)$	0.01mV
600.0mV		0.1mV
6.000V	$\pm (0.8\%+3)$	1mV
60.00V		10mV
600.0V		100mV
600V	$\pm (1.2\%+3)$	1V

AC True RMS

Frequency: 40Hz~ 1kHz

Overload protection: 600V DC or AC rms

Impedance: $10\text{M}\Omega$, More than $100\text{M}\Omega$ on 60mV/600mV range

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2.2.3 DC Current

Range	Accuracy	Resolution
600 μ A	$\pm (1.2\%+2)$	0.1 μ A
6000 μ A		1 μ A
60mA		10 μ A
600mA		100 μ A
6A	$\pm (2.0\%+3)$	mA
15A		10mA

Overload protection: 0.8A/600V, 15A/600V fuse

Continuous testing the maximum steady-state current of 1A

2.2.4 AC Current

Range	Accuracy	Resolution
600 μ A	$\pm (1.5\%+3)$	0.1 μ A
6000 μ A		1 μ A
60mA		10 μ A
600mA		100 μ A
6A	$\pm (2.5\%+5)$	1mA
15A		10mA

AC True RMS

Frequency: 40Hz~1kHz

Overload protection: 0.8A/600V, 15A/600V fuse

Continuous testing the maximum steady-state current of 1A

2.2.5 Resistance

Range	Accuracy	Resolution
600 Ω	$\pm (1.0\%+3)$	0.1 Ω
6k Ω	$\pm (1.0\%+2)$	1 Ω
60k Ω		10 Ω
600k Ω		100 Ω
6M Ω		1k Ω
60M Ω	$\pm (1.5\%+3)$	10k Ω

Overload protection: 600V DC or AC rms

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2.2.6 Capacitance

Range	Accuracy	Resolution
9.999nF	$\pm (3.0\%+10)$	1pF
99.99nF	$\pm (2.5\%+5)$	10pF
999.9nF		100pF
9.999 μ F		1nF
99.99 μ F	$\pm (5.0\%+10)$	10nF
999.9 μ F	$\pm (10.0\%+20)$	100nF
9.999mF		1 μ F
99.99mF		10 μ F

Overload protection: 600V DC or AC rms

2.2.7 Diode and Audible continuity test

Range	Description	Test condition
	Display read approximately forward voltage of diode	Forward DC current approx. 1.5mA Reversed DC voltage approx. 3.2V
	Built-in buzzer sounds if resistance is less than 50 Ω	Open circuit voltage approx. 1V

Overload protection: 600V DC or AC rms

2.2.8 Frequency

Range	Accuracy	Resolution
9.999Hz	$\pm (0.1\%+5)$	0.001Hz
99.99Hz		0.01Hz
999.9Hz		0.1Hz
9.999kHz		1Hz
99.99kHz		10Hz
999.9kHz		100Hz
9.999MHz		1kHz

Sensitivity: sine wave 0.6V rms (9.999MHz: 1.5V rms)

Overload protection: 600V DC or AC rms

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2.2.9 Duty cycle

0.1%~99.9%: $\pm (2.0\%+2)$ Frequency lower than 10kHz

Sensitivity: sine wave 0.6V rms

Overload protection: 600V DC or AC rms

2.2.10 Temperature

Range	Accuracy		Resolution
°C/°F	-20~150°C	$\pm (3^{\circ}\text{C}+1)$	1°C/1°F
	-4~302°F	$\pm (5^{\circ}\text{F}+2)$	
	151~1000°C	$\pm (3\%+2)$	
	303~1832°F	$\pm (3\%+3)$	

NiCr-NiSi sensor

Overload protection: 600V DC or AC rms

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