

Code: UT-171B

UNIVERSAL METER **UT-171B** UNI-T

The UT-171B is a universal digital meter used to measure: voltage, current, resistance, inductance, capacitance, frequency, temperature and checking the correct operation of diodes. The meter has the function of automatic change of measuring ranges, as well as the relative measurement mode. Additionally, the UT-171B has an electric field detection (NCV) function.



DC voltage measurement:

600 mV $\pm$ (0.025% + 5) @ 10 μ V ,
 6 V $\pm$ (0.025% + 5) @ 100 μ V ,
 60 V $\pm$ (0.025% + 5) @ 1 mV ,
 600 V $\pm$ (0.03% + 5) @ 10 mV ,
 1000 V $\pm$ (0.03% + 5) @ 100 mV

AC voltage measurement:	• 600 mV @ 10 μV : $\pm (0.4\% + 40)$ @ 45 Hz ... 1 kHz $\pm (5.0\% + 40)$ @ >1 kHz ... 10 kHz $\pm (5.5\% + 40)$ @ >10 kHz ... 20 kHz $\pm (8.0\% + 40)$ @ >20 kHz ... 100 kHz • 6 V @ 100 μV : $\pm (0.4\% + 40)$ @ 45 Hz ... 1 kHz $\pm (1.2\% + 40)$ @ >1 kHz ... 10 kHz $\pm (3.0\% + 40)$ @ >10 kHz ... 20 kHz $\pm (8.0\% + 40)$ @ >20 kHz ... 100 kHz • 60 V @ 1 mV : $\pm (0.4\% + 40)$ @ 45 Hz ... 1 kHz $\pm (1.2\% + 40)$ @ >1 kHz ... 10 kHz $\pm (3.0\% + 40)$ @ >10 kHz ... 20 kHz $\pm (6.0\% + 40)$ @ >20 kHz ... 100 kHz • 600 V @ 10 mV : $\pm (0.4\% + 30)$ @ 45 Hz ... 1 kHz $\pm (3.0\% + 40)$ @ >1 kHz ... 10 kHz • 1000 V @ 100 mV : $\pm (0.6\% + 40)$ @ 45 Hz ... 1 kHz $\pm (3.5\% + 40)$ @ >1 kHz ... 10 kHz
DC current measurement:	600 μ A $\pm (0.25\% + 20)$ @ 0.01 μ A , 6000 μ A $\pm (0.25\% + 2)$ @ 0.1 μ A , 60 mA $\pm (0.15\% + 10)$ @ 1 μ A , 600 mA $\pm (0.15\% + 10)$ @ 10 μ A , 6 A $\pm (0.5\% + 10)$ @ 100 μ A 10 A $\pm (0.5\% + 2)$ @ 1 mA
AC current measurement:	• 600 μA @ 0.01 μA : $\pm (0.75\% + 20)$ @ 45 Hz ... 1 kHz $\pm (1.2\% + 40)$ @ >1 kHz ... 20 kHz $\pm (6.0\% + 40)$ @ >20 kHz ... 100 kHz • 6000 μA @ 0.1 μA : $\pm (0.75\% + 20)$ @ 45 Hz ... 1 kHz $\pm (1.2\% + 40)$ @ >1 kHz ... 20 kHz $\pm (3.0\% + 40)$ @ >20 kHz ... 100 kHz • 60 mA @ 1 μA : $\pm (0.75\% + 20)$ @ 45 Hz ... 1 kHz $\pm (1.2\% + 40)$ @ >1 kHz ... 20 kHz $\pm (9.0 + 40)$ @ >20 kHz ... 100 kHz • 600 mA @ 10 μA : $\pm (0.75\% + 20)$ @ 45 Hz ... 1 kHz $\pm (1.5\% + 10)$ @ >1 kHz ... 20 kHz $\pm (4.0\% + 40)$ @ >20 kHz ... 100 kHz • 6 A @ 100 μA : $\pm (1.5\% + 20)$ @ 45 Hz ... 1 kHz $\pm (6.0\% + 40)$ @ >1 kHz ... 20 kHz • 10 A @ 1 mA : $\pm (1.5\% + 5)$ @ 45 Hz ... 1 kHz $\pm (5.0\% + 10)$ @ >1 kHz ... 20 kHz
Resistance measurement:	600 $\Omega \pm (0.05\% + 10)$ @ 0.01 Ω , 6 k $\Omega \pm (0.05\% + 2)$ @ 0.1 Ω , 60 k $\Omega \pm (0.05\% + 2)$ @ 1 Ω , 600 k $\Omega \pm (0.05\% + 2)$ @ 10 Ω , 6 M $\Omega \pm (0.15\% + 5)$ @ 100 Ω , 60 M $\Omega \pm (3.0\% + 2)$ @ 1 k Ω

Capacitance measurement:	6 nF $\pm$ (3.0% + 30) + capacity of test leads @ 1 pF , 60 nF ... 600 μ F $\pm$ (2.5% + 5) @ 10 pF ... 100 nF , 6 mF ... 60 mF $\pm$ 10% @ 1 μ F ... 10 μ F
Inductance measurement:	—
Frequency measurement:	60 Hz ... 10 MHz $\pm$ (0.01% + 5) @ 0.001 Hz ... 0.001 MHz
Temperature measurement:	• °C -40 ... 0 °C $\pm$ (2.0% + 30) @ 0.1 °C >0 ... 100 °C $\pm$ (1.0% + 30) @ 0.1 °C >100 ... 1000 °C $\pm$ 2.5% @ 0.1 °C, • °F -40 ... 32 °F $\pm$ (2.5% + 50) @ 0.1 °F >32 ... 212 °F $\pm$ (1.5% + 50) @ 0.1 °F >212 ... 1832 °F $\pm$ (2.5% + 50) @ 0.1 °F
Automatic change of measuring ranges:	✓
hFE:	—
Diode test:	✓
Sound signal of the continuity test:	✓
Checking TTL logic states:	—
RS-232:	—
USB:	✓
Main features:	• True RMS - accurate measurement of the RMS current and voltage for any waveform, • NCV - electric field detection function, • Freezing the last reading, • Freezing the highest or lowest measurement, • Writing the value peak, • REL - relative measurement mode, • Analog bargraph, • Possibility to save readings, access saved results and send them to a computer using the USB interface, • Large, readable LCD display with backlight, • Low battery level alarm, • Aesthetic and solid construction, • The set includes a practical case
Power supply:	Built-in battery 7.4V / 1800mAh, the set includes a 10V / 500mA power supply and a power adapter for charging the battery
Weight:	0.53 kg
Dimensions:	206 x 95 x 55 mm
Manufacturer / Brand:	UNI-T
Guarantee:	2 years