

Code: UT-191E

## UNIVERSAL METER **UT-191E** UNI-T

The UT-191E is a universal digital meter used to measure: voltage, current, resistance, capacitance, frequency, and checking the correctness of diodes operation. The meter has the function of automatic change of measuring ranges, as well as the relative measurement mode.

The device meets the IP65 tightness class.



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|-------------------------|--|
| DC voltage measurement: | $600 \text{ mV} \pm (0.7\% + 3) @ 0.1 \text{ mV}$ ,<br>$6 \text{ V} \pm (0.5\% + 3) @ 0.001 \text{ V}$ ,<br>$60 \text{ V} \pm (0.7\% + 3) @ 0.01 \text{ V}$ ,<br>$600 \text{ V} \pm (0.7\% + 3) @ 0.1 \text{ V}$   |
| AC voltage measurement: | $600 \text{ mV} \pm (1.0\% + 4) @ 0.1 \text{ mV}$ ,<br>$6 \text{ V} \pm (0.7\% + 3) @ 0.001 \text{ V}$ ,<br>$60 \text{ V} \pm (1.0\% + 3) @ 0.01 \text{ V}$ ,<br>$600 \text{ V} \pm (1.0\% + 3) @ 0.1 \text{ V}$<br><br>• LPF mode :<br>$600 \text{ V} \pm (2.0\% + 5) @ 0.1 \text{ V}$<br><br>• LoZ mode :<br>$600 \text{ V} \pm (2.0\% + 5) @ 0.1 \text{ V}$ |
| DC current measurement: | $600 \mu\text{A} \pm (0.8\% + 3) @ 0.1 \mu\text{A}$ ,<br>$6000 \mu\text{A} \pm (0.8\% + 3) @ 1 \mu\text{A}$ ,<br>$60 \text{ mA} \pm (0.8\% + 3) @ 0.01 \text{ mA}$ ,<br>$600 \text{ mA} \pm (0.8\% + 3) @ 0.1 \text{ mA}$ ,<br>$6 \text{ A} \pm (1.0\% + 3) @ 0.001 \text{ A}$ ,<br>$20 \text{ A} \pm (1.2\% + 5) @ 0.01 \text{ A}$                            |

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| AC current measurement:                    | 600 $\mu$ A $\pm$ (1.0% + 3) @ 0.1 $\mu$ A ,<br>6000 $\mu$ A $\pm$ (1.0% + 3) @ 1 $\mu$ A ,<br>60 mA $\pm$ (1.0% + 3) @ 0.01 mA ,<br>600 mA $\pm$ (1.0% + 3) @ 0.1 mA ,<br>6 A $\pm$ (1.2% + 3) @ 0.001 A ,<br>20 A $\pm$ (1.5% + 5) @ 0.01 A  |
| Resistance measurement:                    | 600 $\Omega$ $\pm$ (1.0% + 2) @ 0.1 $\Omega$ ,<br>6 k $\Omega$ $\pm$ (0.8% + 2) @ 0.001 k $\Omega$ ,<br>60 k $\Omega$ $\pm$ (0.8% + 2) @ 0.01 k $\Omega$ ,<br>600 k $\Omega$ $\pm$ (0.8% + 2) @ 0.1 k $\Omega$ ,<br>6 M $\Omega$ $\pm$ (1.2% + 3) @ 0.001 M $\Omega$ ,<br>60 M $\Omega$ $\pm$ (2.5% + 5) @ 0.01 M $\Omega$   |
| Capacitance measurement:                   | 6 nF $\pm$ (4% + 8) + capacity of test leads @ 1 pF ,<br>60 nF ... 600 $\mu$ F $\pm$ (3% + 5) @ 10 pF ... 100 nF ,<br>6 mF ... 60 mF $\pm$ 10% @ 1 $\mu$ F ... 10 $\mu$ F  |
| Inductance measurement:                    | —  |
| Frequency measurement:                     | 10 Hz ... 1 MHz $\pm$ (0.1% + 4) @ 0.01 Hz ... 0.001 MHz   |
| Square-wave signal duty ratio measurement: | 0.1 % ... 99.9 % $\pm$ (2% + 5) @ 0.1 %  |
| Temperature measurement:                   | —  |
| Automatic change of measuring ranges:      | ✓  |
| hFE:                                       | —  |
| Diode test:                                | ✓  |
| Sound signal of the continuity test:       | ✓  |
| Checking TTL logic states:                 | —  |
| RS-232:                                    | —  |
| USB:                                       | —  |
| Main features:                             | <ul style="list-style-type: none"> <li>• True RMS - accurate measurement of the RMS current and voltage for any waveform,</li> <li>• Possibility to measure AC voltage using low measuring impedance (LoZ mode),</li> <li>• LPF function - allows to measure the AC voltage values using low-pass filter with a frequency limit of 200 Hz,</li> <li>• Robust housing that meets the requirements of the IP65 "Index of Protection" class,</li> <li>• Freezing the last reading,</li> <li>• Flashlight built-in,</li> <li>• Freezing the highest or lowest measurement,</li> <li>• REL - relative measurement mode,</li> <li>• Analog bargraph,</li> <li>• Large, readable LCD display with backlight,</li> <li>• Low battery level alarm,</li> <li>• Aesthetic and solid construction,</li> <li>• The set includes a practical case</li> </ul> |
| Power supply:                              | 9V, type 6LR61 battery   |
| Weight:                                    | 0.4 kg   |
| Dimensions:                                | 180 x 87 x 66 mm   |
| Manufacturer / Brand:                      | UNI-T  |
| Guarantee:                                 | 2 years  |