




DataSheet

M32

TRMS AUTORANGE

MULTIMETER

Technical parameters

Operating environment:	600V CAT IV and 1000V CAT. III
Pollution level:	2
Altitude	< 2000 m
Working temperature & humidity:	0~40°C (The requirements will not be considered when temperature is less than 10°C and relative humidity is below 80%).
Storage temperature & humidity:	-10~60°C (batteries shall be removed when RH is below 70%)
Coefficient of temperature:	0.1×accuracy/ OC (<18 °C or >28°C). Allowable max voltage between terminal to be measured and ground: 1000V DC or 750V AC (valid value)
Protection of protective tube: mA position:	protective tube FF 600mA/1000V; A position protective tube FF 10A/1000V
Rotation rate:	approximately 3 revolutions/second
Display unit:	6000 counts displayed on LCD screen. Automatically display the symbol for unit in accordance with measurement function position.
Outrange indication:	the LCD screen will display "OL".
Battery Low indication:	“  ” will appear when the battery's voltage is below the normal working voltage.
Input polarity indication:	“—” will automatically appear.
Power:	4 x 1.5V AA battery
Dimensions:	190mm(L)×89mm(W)×50mm(H).
Weight:	approximately 380g (inclusive of batteries)

Precision indicator

Accuracy: $\pm(\% \text{ reading} + \text{digit})$ The accuracy warranty will run for 1 year upon the ex-factory date.

Reference conditions: ambient temperature is between 18°C and 28°C and relative humidity is no more than 80%.

DC voltage

Measuring range	Resolution	Accuracy
600mV	0.1mV	$\pm(0.5\% \text{ Reading} + 3 \text{ digits})$
6V	1mV	
60V	10mV	
600V	100mV	
1000V	1V	$\pm(0.5\% \text{ Reading} + 3 \text{ digits})$

Input impedance: 10M Ω

Maximal input voltage: 1000Vdc or 750Vac valid value

AC voltage

Measuring range	Resolution	Accuracy
6V	1mV	± (0.8% readings +3 digits)
60V	10mV	
600V	100mV	± (1% readings +10 digits)
750V	1V	

Input impedance: 10MΩ

Maximal input voltage: 1000Vdc or 750Vac valid value

Frequency response: 40Hz-1kHz True RMS

Frequency

Measuring range	Resolution	Accuracy
9.999Hz	0.001Hz	± (1% Reading + 3 digits)
99.99Hz	0.01Hz	
999.9Hz	0.1Hz	
9.999KHz	0.001 KHz	
99.99KHz	0.01 KHz	
999.9KHz	0.1 KHz	
9.999MHz	0.001MHz	

Input voltage range: 200mV-10V ac valid value

Overload protection: 600V DC/AC

Resistance

Measuring range	Resolution	Accuracy
600Ω	0.1Ω	±(0.8% Reading + 3 digits)
6kΩ	1Ω	
60kΩ	10Ω	
600kΩ	100Ω	
6MΩ	1kΩ	
60MΩ	10kΩ	±(1.2% Reading + 30 digits)

Overload protection: 600V DC/AC

Open-circuit voltage: 1V

Diode

Functions	Measuring range	Resolution	Testing conditions
Diode test ➡	0-3V	0.001V	Forward DC current: approximately 1mA; Open-circuit voltage: approximately 3.2V. The display unit shows the approximate value of the diode's forward voltage drop.

Overload protection: 600V DC/AC

Continuity

Functions	Measuring range	Resolution	Description	Testing conditions
continuity symbol	600Ω	0.1Ω	When the built-in beeper sounds and the accompanying green indicator is on, the measured resistance shall not be over 30.Ω The red indicator will be on when the resistance is 40Ω-60Ω.	Open-circuit voltage: approximately 1V

Overload protection: 600V DC/AC

Capacitor

Measuring range	Resolution	Accuracy
6nF	0.001nF	± (4.0% Reading +30 digits)
60nF	0.01nF	± (4.0% Reading +3 digits)
600nF	0.1nF	
6μF	1nF	
60μF	10nF	
600μF	100nF	
6mF	1uF	
100mF	0.01mF	± (5.0% Reading + 3 digits)

Overload protection: 600V DC/AC

DC current

Measuring range	Resolution	Accuracy
60μA	0.01μA	±(0.8% Reading + 3 digits)
600μA	0.1μA	
6mA	0.001mA	
60mA	0.01mA	
600mA	0.1mA	
10.00A	10mA	±(1.2% Reading + 3 digits)

Overload protection: protective tube for mA measuring range (FF600mA/1000V) ; protective tube for 10A measuring range (FF10A/1000V) .

Maximal input current: mA position: 600mA DC/AC (valid value);

10A position: 10A DC/AC (valid value)

When the measured current is over 5A, the duration of continuous measurement shall not be over 10 seconds. The current measurement shall be carried out 1 minute after the completion of previous measurement.

AC current

Measuring range	Resolution	Accuracy
60μA	0.01μA	±(1% Reading + 3 digits)
600μA	0.1μA	
6 mA	0.001mA	
60mA	0.01mA	
600mA	0.1mA	
10A	10mA	±(1.5% Reading + 3 digits)

Overload protection: protective tube for mA measuring range (FF600mA/1000V) ; protective tube for 10A measuring range (FF10A/1000V) .

Maximal input voltage: mA position: 600mA DC/AC (valid value);

10A position: 10A DC/AC (valid value)

When the measured current is over 5A, the duration of continuous measurement shall not be over 10 seconds. The current measurement shall be carried out 1 minute after the completion of previous measurement.

Frequency response: 40Hz-1kHz True RMS

Temperature

Measuring range	Resolution	Accuracy	
°C	1°C	-20°C~ 1000°C	± (1.0%+3) reading
°F	1°F	-4°F~ 1832°F	± (1.0%+3) reading

Overload protection: 600V DC/AC



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