Order Code : 20213590.1.12
Name : DC Voltmeter

ACCESSORIES

- User manual
- Pair of test leads
- K-type Thermocouple

SPECIFICATION GENERAL

- T-RMS Measurements
- Auto-Ranging
- Display 6000 counts LCD;
- Sampling Rate: 2~3 times/s;
- Over-Range Indication 'OL'.
- Display for Capacitance range: 6200 counts
- Display for Frequency range: 9999 counts
- Polarity: Auto
- Operating Temperature: 0°C~40°C(32°F~104°F)
- Storage Temperature: -10°C~50°C(14°F~122°F)
- Relative Humidity: 0°C~30°C, RH≤75%; 30°C~40°C, RH≤50%
- Operating Altitude: 0~2000m
- Battery: 6F22 9V
- Low Battery: LCD displays the symbol, ' ⊟ '.
- Size: 186 mm×91mm×39mm
- Weight: around 305g (including batteries)
- Electromagnetic compatibility: RF≤1V/m, overall accuracy=specified accuracy+5% of range; RF>1V/m, no specified calculation.
- CE Certification
- Data Hold: To freeze displayed data
- Relative Measurement
- The device complies with IEC60101-1, Pollution Degree 2, over-voltage (CAT II 1000V), and double insulation safety standards
- Transistor Test and Diode Test
- Built-in Non Contact type Voltage Detector

TECHNICAL SPECIFICATIONS

Accuracy : ± (a% of reading + b), 'b' is the numerical value in least significant digit slot; 1 year warranty,

Ambient temperature: 23°C±5°C (73.4°F±9°F).

Ambient humidity: ≤75% RH.

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

TESCA TECHNOLOGIES PVT. LTD.
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DC VOLTAGE

Range	Resolution	Accuracy
600.0mV	0.1mV	±(0.8%+3)
6.000V	0.001V	±(0.5%+3)
60.00V	0.01V	
600.0V	0.1V	±(0.7%+3)
1000V	1V	

⚠ **Input impedance:** around 10MΩ

AC VOLTAGE (T-RMS)

Range	Resolution	Accuracy
600.0mV	0.1mV	±(1.0%+4)
6.000V	0.001V	±(0.8%+3)
60.00V	0.01V	
600.0V	0.1V	±(1.2%+3)
1000V	1V	

⚠ **Input impedance:** around 10MΩ

- True RMS display. Frequency response: 45~400Hz
- Accuracy assurance range: 5~100%,
- AC crest factor can reach up to 3.0 (1.5 for 600V range)

Non sine wave: When the crest factor is 1.0~2.0, the accuracy should increase by 3.0%, 2.0~2.5, 5.0%, and 2.5~3.0, 7.0%
Max input voltage: 1000Vrms.

RESISTANCE

Range	Resolution	Accuracy
600.0Ω*	0.1Ω	±(1.0%+2)
6.000kΩ	0.001kΩ	±(0.8%+2)
60.00kΩ	0.01kΩ	
600.0kΩ	0.1kΩ	
6.000MΩ	0.001MΩ	±(1.2%+3)
60.00MΩ	0.01MΩ	±(2.5%+5)

CONTINUITY , DIODE

Range	Resolution	Note
	0.1Ω	Resistance setting in open circuit status: >50Ω, buzzer doesn't beep; Resistance setting for normal circuit: ≤10Ω, buzzer beeps continuously.
	0.001V	Voltage at open circuit: about 3.2V Normal voltage of silicon PN junction is about 0.5~0.8V.
hFE	1B	Triode amplification factor 1~1000B Ib≈10uA ; VCC≈3.2V

⚠ **Overload protection :** 250V

CAPACITANCE

Range	Resolution	Accuracy
6.000nF	1pF	In relative mode: ±(4%+10)
60.00nF ~ 600.0μF	10pF ~ 0.1μF	±(4%+5)
6.000mF ~ 60.00mF	1μF ~ 10μF	±10%

⚠ **Overload protection:** 250V

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FREQUENCY/DUTY RATIO

Range	Resolution	Accuracy
9.999Hz ~ 9.999MHz	0.001Hz ~ 0.001MHz	±(0.1%+5)
0.1%~99.9%	0.1%	Unspecified

⚠ **Overload protection:** 250V
Input amplitude a: (DC level is zero)
≤ 100kHz: 100mVrms≤a≤20Vrms
> 100kHz~1MHz: 200mVrms≤a≤20Vrms
> 1MHz: 500mVrms≤a≤20Vrms
> 5MHz~10MHz: 900mVrms≤ a ≤20Vrms
Duty ratio %: only applicable to ≤10kHz measurement

TEMPERATURE

Range			Resolution	Accuracy
°C	-40~1000°C	-40~40°C	1°C	±4°C
		>40~500°C		±(1.0%+4)
		>500~1000°C		±(2.0%+4)
°C	-40~1832°F	-40~104°F	1°F	±5°F
		>104~932°F		±(1.5%+5)
		>932~1832°F		±(2.5%+5)

⚠ **Overload protection:** 250V

Note: The equipped accessory, K-type thermocouple can only test the temperature below 230°C /446°F.

DC CURRENT

Range		Resolution	Accuracy
µA	600.0µA	0.1µA	±(1.0%+3)
	6000µA	1µA	
mA	60.00mA	10µA	
	600.0mA	0.1mA	
A	6.000A	1mA	±(1.2%+5)
	20.00A	10mA	

- The device can test up to 10A current continuously.

Overload protection:
µA mA range: F2 Fuse FF0.6A H 250V
20A range: F1 Fuse F 20A H 250V

AC CURRENT (T-RMS)

Range		Resolution	Accuracy
µA	600.0µA	0.1µA	±(1.2+3)
	6000µA	1µA	
mA	60.00mA	0.01mA	
	600.0mA	0.1mA	
A	6.000A	0.001A	±(1.5%+5)
	20.00A	0.1A	

Frequency response: 45~400Hz

Display: True RMS

Accuracy assurance range: 5~100%, in short circuit status, remaining readings with less than 2 digits are permitted.

AC crest factor can reach up to 3.0.

Non sine wave: When the crest factor is 1.0~2.0, the accuracy should increase by 3.0%, 2.0~2.5, 5.0%, and 2.5~3.0, 7.0%

⚠ **Overload protection:** similar to the protection for DC current measurement

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