

# DIGITAL SCREEN TENSION METER

## 1. FEATURES

- \* Suitable for general wire mesh tension and steel mesh tension measurement.
- \* Suitable for screen printing and screen stencil measurement, high accuracy. The ideal and necessary tool for production of precise screen and steel mesh. Can avoid the personal or tactile measurement error.
- \* LCD digital display, eliminating reading error.
- \* Use USB/RS-232 data output to connect with PC.
- \* Provide Bluetooth data output choice.

## 2. SPECIFICATIONS

Measurement Range: 7~20 N/cm  
 Display Range: 0~25 N/cm  
 Resolution: 0.1  
 Fiducial Error: 5%  
 Operating Environment:  
 Temperature: 0 ~ 40 °C  
 Humidity: 10 ~ 90 %RH  
 Power Supply:  
 4 x 1.5 V AAA Size (UM-4) Battery  
 Dimensions: 175 x 95 x 40 mm

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## 4. MEASURING PROCEDURE

### 4.1 Zero Correction

Hold the meter vertically with the point of the indenter hanging in the air, the reading on the display should be "0". If not, depress the "Zero key" to make the tester display "0".

### 4.2 High end calibration

Just place the indenter onto the calibration board, the readings on the display should lie between 24.7 and 25.0. If not, press "CAL key" to carry out high end calibration.

## 5. UNIT SELECTION

The general tension unit is N/cm, indicating how much tension is in the yarn per cm width. There is another unit of this instrument Kg/cm. Press and hold the Power Key till "UNIT" appears on the display, converting between N/cm and Kg/cm.

## 6. MEASURING PROCEDURE

Place the tension on the nets yarn, flick the nets yarn beside the tensiometer, then read.

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Weight: 490 g (Not Including Batteries)

### Power off: 2 modes

Manual off at any time by depressing the power key till OFF shows on the display or Auto power off after 5 minutes from last key operation .

### Accessories:

Carrying case.....1 pc.  
 Operation manual.....1 pc.  
 Calibration board.....1 pc.

### Optional accessory:

Cable and software for RS232C  
 Bluetooth data output

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## 3. FRONT PANEL DESCRIPTIONS



- 3-1 Unit N
- 3-2 RS232C Interface
- 3-3 Calibration Key
- 3-4 Display
- 3-5 Measurement Value
- 3-6 Zero Key
- 3-7 Power Key
- 3-8 Indenter

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## 7. BATTERY REPLACEMENT

7.1 When the battery symbol appears on the display, it is time to replace the batteries.

7.2 Slide the Battery Cover away from the tester and remove the batteries.

7.3 Install batteries paying careful attention to polarity.

7.4 If the instrument is not to be used for any extended period, remove batteries.

## 8. TECHNICAL DATA

Printing Task and Determination of Screen Tension

Wire Mesh	Printing Task	Tension(N/cm)
Ultra High Tension Wire Mesh	Circuit Board and Measuring Scale	16~20
High Strength Wire Mesh	Multicolor and Four-Color Printing (Mechanical Printing)	16~20
High Precision Ultra Fine Wire Mesh	High Precision Multi Layer Circuit Printing	25~30
High Precision Polyester Net (Standard Monofilament)	Multicolor and Four-Color Printing (Manual Printing)	8~12

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Wire Mesh	Printing Task	Tension(N/cm)
Ordinary Polyester Net (Standard Monofilament)	Flat Object	8~12
Nylon Mesh	Curve Surface or Rough Object	8~12

## Commonly Used Screen Maximum Tension

Data in the table is based on testing condition of Swiss thick gauze. Concrete data depends on the quality of network machine. With good quality network machine, the gauze will not crack even in the highest tension. but if it exceeds the maximum tension, the gauze cracks easily, please reference when trapping net.

		Maximum Tension	Regulating Pressure
77T	200 mesh	30N/cm	7kg/cm
90T	230 mesh	25N/cm	6.5kg/cm
100T	250 mesh	23N/cm	6kg/cm
120T	300 mesh	21N/cm	5.7kg/cm
140T	350 mesh	20N/cm	5.3kg/cm
165T	420 mesh	18N/cm	5kg/cm

Note: The above data is the reference data in the use of a factory pneumatic net machine, the specific operation according to actual circumstances.

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