TENSITRON

TX-1 Series
Digital Tension Meters
For small wire and other materials

Versatile tension measurement for:

- **Wire, filaments**, or other thin materials
- Tension **up to 5000 g. (11 lb.)**
- **Moving or static** applications

Easy to use:

1. Turn unit on and select material to be measured.
2. Pull trigger. Place material under rollers. Release trigger to engage material.
3. Tension will display.

Convenient, quantifiable quality control

Ideal for coil winding, textile manufacturing, EDM wire, and more.

- Superior technology
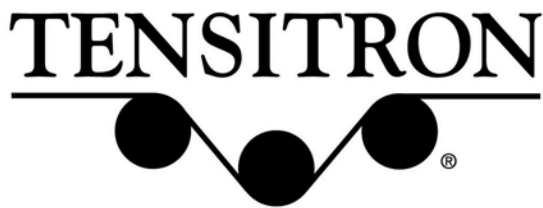- Easy operation
- High precision
- Powerful features

Features:

- Calibrated for extensive selection of filaments and copper wires
- Custom calibrations available (up to 10)
- Accurate +/- **1% full-scale** (standard)
- Measures static or dynamic material
- Displays tension in g, lb, or N
- Stores tension values with one touch

- Dynamic Bar Graph provides quick, color visual of tension levels
- Calculates Data Statistics (count, max, min, average, standard deviation)
- **Stabilizes readings on moving material** with adjustable LCD refresh rates and data averaging feature
- Rechargeable battery powers the instrument for up to 12 hours of continuous use
- Large, clear, color display
- One-year warranty against factory defects
- Lightweight, protective carrying case included
- Data can be output to an electronic device with RS-232 or analog output option
- Calibration certificate included with values traceable to NIST Standards
- Mounting Bracket available
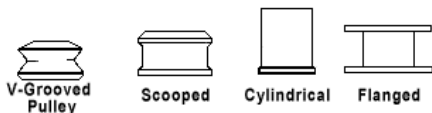- Made in the USA

Made in USA

Models:

- **Standard Calibrations:** TX-1 meters come with standard calibrations for extensive selections of underline copper wire and underline filaments. (See the chart on the right.)

- **Special Calibrations:** Up to 10 special calibrations can be added for other materials, such as:
  - Large copper wire up to 20 AWG (1/32", .032", .8 mm)
  - Tape, ribbon up to 2" wide (50mm)
  - Fiber optics, fiber tow
  - Solid steel wire up to .02" (.5mm)
  - Braided steel wire up to .04" (1mm)

- **Custom Rollers:** Some materials may require custom rollers (see Options below).

- **Larger Applications:** For larger wires or higher tension, use an LX-1.

Model	Standard TX-1 Menu Selections Custom calibrations are available for other diameters and materials.		Tension Range
	Copper Wire	Filaments	
TX-125-1	**54 - 37 AWG** .0002" - .0044" .01 - .11 mm	.0001" - .006" .01 mm - .15 mm	0 - 125 g.
TX-1000-1	**40 - 32 AWG** .0002" - .008" .08 mm - .20 mm	.0001" - .013" .01 mm - .30 mm	10 - 1000 g.
TX-5000-1	**40-28 AWG** .0002" - .012" .08 mm - .30 mm	.0001" - .019" .01 mm - .5 mm	50 - 5000 g.
TX-5EDM-1	.10, .15, .20, .25 and .30 mm EDM Wire		

Options:

TX-350 Mounting Bracket

STANDARD CONTACT ELEMENTS

V-Grooved Pulley   Scooped   Cylindrical   Flanged

Part No.	Option Name	Option Description
-A	Analog Output	Outputs continuous tension readings for remote monitoring and automatic responsive action
-E	RS-232 Digital Output	Uploads stored or real-time tension values to your electronic device
-R	Custom Rollers	TX-1 meters come standard with V-grooved pulleys for measuring wires and filaments. Custom rollers (see diagram) are available for measuring other materials.
-S	Speed & Length	Indicate real-time speed (in FPM or MPM) and length of material measured.
TX-350	Mounting Bracket	Mount your meter for safe, hands-free monitoring *(for continuous monitoring, ask about Tensitron transducers)*

Specifications:

Accuracy: **1% +/- full-scale** (standard). Accuracy for custom calibrations is material-specific.

Battery: NiMH (NOT lithium ion). Safe for air transport. Rechargeable. Up to 12 hours continuous use per charge.

Power supply: Input: 100-240VAC, 50-60Hz, 0.48A, Output: 9 VDC, 2.2A

Weight & Dimensions:

- Instrument only: 7.10" x 2.31" x 3.17", .75 lbs (14 oz.)

- Instrument & Case: 12" x 9.5" x 3.75", 2 lb. 10 oz.

- Shipment weight & dimensions (1 unit in case): 16" x 12" x 7", 4 lb.

2.31 [59 mm]   3.17 [80 mm]

7.10 [180 mm]

TX-1 SERIES DIGITAL TENSION METER (ALL MODELS: 125-1, 1000-1, 5000-1, 5EDM-1)

ABQINDUSTRIAL
PRECISION. RELIABILITY. QUALITY.