

Features

- 64mm x 36mm measuring head for measurements with limited access space
- Ball-bearing mounted, hardcoat anodized aluminum V-grooved rollers, for material speeds up to 900 m/min (2000 m/min with "K" option)
- Large, backlight LCD-display rotates in 90° steps for optimal viewing
- 3 different display modes: Numeric, Numeric with Bar Graph, Numeric with Tend Graph (tension vs time)
- Automatic Zero-Setting in each measuring position
- Material memory locations for custom calibrations: 4 (DTSE), 9 (DTXE)
- User-set Min and Max alarms with indication if reading is out of limits
- Hi-speed data sampling & recording of Min, Max, Hi-Peak, Lo-Peak, Average & Standard Deviation
- User-Selectable measurement units: cN, daN, g, kg, N, lb
- Rugged aluminium housing with rubberized handle provides a secure and comfortable grip
- Setup parameters can be password protected
- CE certified with 1-Year Warranty
- NIST-Traceable Calibration Certification optionally available

DTSE/DTXE

Limited Access Space

Hand-Held Digital Tension Meters

4 tension ranges available up to 2000 cN / 2 Kg Capacity

DTSE and DTXE tension meters feature a small measuring head with miniature rollers for applications with limited access space or where filaments run close together. They are ideal for uses on textiles (2000 tex, max) or wires up to 0.5mm diameter.

DTXE (datalogging) models include: memory storage for 60,000 data points and USB output with sample rates up to 1kHz. Tension Inspect Software which displays real-time readings on a pc or allows downloading of stored data is included. WiFi for wireless communication is available as an option.



Depending on the measuring position the LCD display automatically rotates in 90° steps and locks in position.



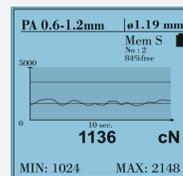
Large backlit Display with 3 user-selected display modes



Numeric



Numeric, Bar Graph with set point markers



Numeric and Trend Graph

Specifications

Accuracy	- Factory Cal Mat'l ±1% FS ±1-digit, from 5% to 100% Full scale - Other Materials ±3% FS ±1-digit	Damping	User-adjustable electronic damping (averaging)
Calibration Memory	- DTSE 1 for factory calibration plus 4 for customized calibrations - DTXE 1 for factory calibration plus 10 for customized calibrations	Cal. adjustment	±10 steps in 1% increments
Measuring units	<i>Tension:</i> cN, daN, g, kg, N, lb <i>Thickness:</i> mm, inch	Auto power off	Approx. 3 minutes of non-use
Overrange	Approx. 10% FS*, without accuracy guarantee	Temperature coefficient	Gain: less than ±0.01% FS* /°C Zero point less than ±0.3% FS* /°C
Overload protection	200% Full Scale	Temperature range	50 to 113°F (10 – 45 °C)
Measuring principle	Strain gauge bridge	Air humidity	85% RH, max.
Measuring frequency	Max.1 kHz (1000 samples/sec.)	Built-in battery	Lithium Polymer
Measuring roller	0.2mm, maximum	- Battery Life	20 hours continuous use (approx.)
Sampling rate	200Hz: AVG, MIN and MAX	- Recharging Time	3½ hours (approx.)
Display update rate	Approx. 2 times per second	- Battery Charge	100-240V AC, swappable plug adapters
LCD Display	Color-TFT 128 x 160	- Plug Adapters	USA, Euro and UK
Display modes (3)	Large Numeric, Numeric with bar graph, Numeric with trend graph (tension vs. time)	Housing material	Die-cast aluminium
Memory	Min, Max, Hi-Peak, Lo-Peak, Average & Standard Deviation (per measuring interval)	Housing dimensions	10.45" x 3.09" x 1.81" (265 x 78.5 x 46mm)
		Weight, net / gross	Up to DTSE-50K approx. 1.93 lbs (875g) / 3.42 lbs (1550g)
		Additional specifications model DTXE	
		Output signal	USB
		Memory	60,000 values at 255 measuring periods
		Memory modes	5 memory modes with statistical evaluation

*Full scale



Tension Ranges

Model	Tension Range	Resolution	Measuring Head Width*	Applications Textile Industry e. g. Yarn Count	Factory Calibration Material**
DTSE-200 / DTXE-200	1 - 200.0 g or cN	0.1 g or cN	36mm	max. 200 tex	0.12 mm Ø (PA)
DTSE-500 / DTXE-500	1 - 500.0 g or cN	0.1 g or cN	36mm	max. 500 tex	0.20 mm Ø (PA)
DTSE-1000 / DTXE-1000	10 - 1000 g or cN	1 g or cN	36mm	max. 1000 tex	0.30 mm Ø (PA)
DTSE-2000 / DTXE-2000	20 - 2000 g or cN	1 g or cN	36mm	max. 2000 tex	0.50 mm Ø (PA)

* Width of bracket assembly. ** Suitable for 95 % of applications.

Roller Guides

Roller Width	Line Speeds %max...m/min	Roller Material*
Standard	900	Hard-coated aluminium
Code K	2000	Hard-coated aluminium

Complete Kit

DTSE models include tension meter in a foam-fitted carrying case, built-in rechargeable battery, AC-adaptor/Charger (with US and Euro plug adapters) and operating instruction manual.

DTXE models also include USB cable and Tension Inspect software.