

DTSL/DTXL

Heavy Duty Hand-Held Digital Tension Meters

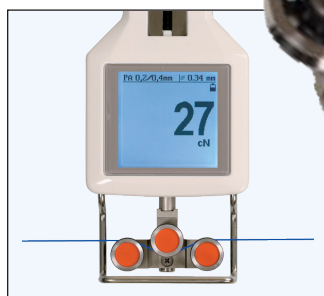
Features

- Large 30mm diameter V-grooved rollers fabricated from Hardened Steel for materials up to 5mm diameter)
- Optional U-Grooved Rollers (Code "R1"), Flat Cylindrical Rollers 6mm width between flanges (Code "B6") or 10mm width between flanges (Code "B10")
- Large diameter rollers minimize material deflection
- 3 different display modes: Numeric, Numeric with bar graph, Numeric with trend graph (tension vs. time)
- Automatic Zero-Setting in all measuring positions
- Material memory locations for custom calibrations: 4 (DTSL), 9 (DTXL)
- User-set Min and Max alarms with indication if reading is out of limits
- User-selectable measurement units: cN, daN, g, kg, N, lb
- Hi-speed data sampling & recording of Min, Max, Hi-Peak, Lo-Peak, Average & Standard Deviation
- Setup parameters can be password protected
- Rugged aluminium housing with rubberized handle
- CE certified with 1-Year Warranty
- NIST-Traceable Calibration Certification is optionally available

4 tension ranges available from 155.0 - 2500 g up to 2 - 40 Kg (44 Lbs)

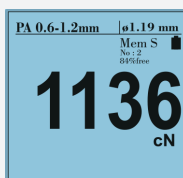
DTSL and DTXL heavy-duty tension meters are ideal for use on cables, ropes, wires, buffer tubes, optic fiber tows etc., as well as flat materials, up to 10mm in width.

Large, hardened guide rollers for minimized material deflection with 29.5mm groove
DTXL (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.

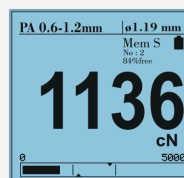


Depending on the measuring position the LCD display automatically rotates in 90° steps and locks in position.

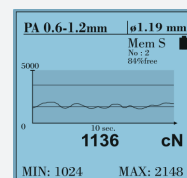
Large backlit Display with 3 user-selected display modes



Numeric



Numeric, Bar Graph
with set point markers



Numeric and
Trend Graph

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Specifications

Accuracy		
- Factory Cal Mat'l	±1% FS ±1-digit, from 5% to 100% Full scale	
- Other Materials	±3% FS ±1-digit	
Calibration Memory		
- DTSL	1 for factory calibration plus 4 for customized calibrations	
- DTXL	1 for factory calibration plus 10 for customized calibrations	
Measuring units		
	<i>Tension:</i> cN, daN, g, kg, N, lb	
	<i>Thickness:</i> mm, inch	
Overrange		Approx. 10% FS*, without accuracy guarantee
Overload protection		200% Full Scale
Measuring principle		Strain gauge bridge
Measuring frequency		Max.1 kHz (1000 samples/sec.)
Measuring roller		0.2mm, maximum
Sampling rate		200 Hz: AVG, MIN and MAX
Display update rate		Approx. 2 times per second
LCD Display		Color-TFT 128 x 160
Display modes (3)		Large Numeric, Numeric with bar graph, Numeric with trend graph (time vs. tension)
Memory		Min, Max, Hi-Peak, Lo-Peak, Average & Standard Deviation (per measuring interval)
Damping		User-adjustable electronic damping (averaging)
Cal. adjustment		±10 steps in 1% increments
Auto power off		Approx. 3 minutes of non-use
Temperature coefficient		Gain: less than ±0.01% FS* /°C Zero point less than ±0.3% FS* /°C
Temperature range		50 to 113°F (10 – 45 °C)
Air humidity		85% RH, max.
Built-in battery		Lithium Polymer
- Battery Life		20 hours continuous use (approx.)
- Recharging Time		3½ hours (approx.)
- Battery Charger		100-240V AC, swappable plug adapters
- Plug Adapter		USA, Euro and UK
Housing material		Die-cast aluminium
Housing dimensions		10.45" x 3.09" x 1.81" (265 x 78.5 x 46mm)
Weight, net / gross		Up to DTSL-50K approx. 1.93 lbs / 3.42 lbs (940g / 1620g)
Additional specifications model DTXL		
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*
DTSL-2500 / DTXL-2500	150 - 2500 g	1 g	185mm
DTSL-5500 / DTXL-5000	250 - 5000 g	1 g	185mm
DTSL-10K / DTXL-10K	1 - 10 Kg	0.01 Kg	235mm
DTSL-20K / DTXL-20K	2 - 20 Kg	0.01 Kg	235mm

* Width of bracket assembly.

Roller Guides

Roller Width	Line Speeds *max...m/min	Roller Material*
Standard	4000	Hard-coated aluminum
Code R1	4000	Hard-coated aluminum
Code B6	2000	Hard-coated aluminum
Code B10	2000	Hard-coated aluminum

Complete Kit

DTSL 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.

DTXL models also include USB cable and Tension Inspect software.