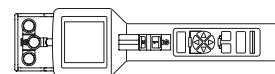




Hand-Held, electronic
DT Series



DT SERIES

12 Tension ranges
from 1 - 200 cN to 0.6 - 60 daN

Special features

Models DTMB and DTMX:

- + Large, backlight LCD-display with 3 different displays:
 - numeric,
 - numeric with live load bar,
 - numeric with graph (time-tension)
- + The display rotates in 90° steps for better reading (see page C 9)
- + New, unique, force reduced material catching system
- + Thickness compensator to reach highest accuracy: the diameter of the material to be measured can be set with a wheel and will be displayed in the screen (not available for all models)
- + Automatic „Zero-Setting“ in each measuring position using a special sensor technique
- + High speed data sampling (internal 8 kHz) and recording of MIN-, MAX-, LAST-reading, PEAKS, AVG and standard deviation
- + Programmable MIN- and MAX-alarms - indication in the display, if reading is out of limits
- + Material memory locations for customer made calibrations: 4 model DTS and 9 model DTX
- + Cal. adjustment for fine tuning of the calibration, if material differs from the used calibration material
- + Flexible menu set-up to meet operators demand
- + Menu set-up in english or german language
- + Selectable units of measurement: cN, daN, g, kg, N, lb
- + Rubberized handle provides a secure hold in the operators' hand

Standard features

Models DTS and DTX:

- Everything in operator's view:
 - the guide rollers
 - the measured material
 - the readings
- Filament guide and roller shifting mechanism ensure easy acquisition of the running material
- Ball-bearing mounted, V-grooved guide rollers
- Rugged aluminium housing
- LiPo Accu (approx. 40 h continuous use) with AC adapter
- CE approved (tested for electromagnetic compatibility)
- Inspection Certificate with calibration report optionally available

1st IN TENSION METERS WORLDWIDE®



Model DTS

Model DTS:
The basic unit for easy use, for many applications, without interface

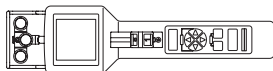
Model DTS-1000

Easy mounting for online applications (Code MH)

Optional for DT series



C Hand-Held, electronic
DT Series



Model DTS

Available Models

MODEL	Tension Ranges cN	Measuring Head Width* mm	SCHMIDT Calibration Material** Polyamid (PA)-Monofil	Textile Industry Applications e.g. yarn count	Wire Industry Applications e.g. soft-annealed copper wire	Material thickness compensator included
DTS-200	1-200.0	66	0.12 mm Ø	max. 200 tex	max. 0.15 mm Ø	
DTS-500	1-500.0	66	0.12 + 0.20 mm Ø	max. 500 tex	0.05 - 0.25 mm Ø	✓
DTS-1000	10-1000	66	0.20 + 0.40 mm Ø	max. 1000 tex	0.10 - 0.40 mm Ø	✓
DTS-2000	20-2000	66	0.40 + 0.70 mm Ø	max. 2000 tex	0.30 - 0.60 mm Ø	✓
DTS-2500	25-2500	116	0.40 + 0.70 mm Ø	max. 2500 tex	0.30 - 0.70 mm Ø	✓
DTS-4000	40-4000	66	0.50 + 0.90 mm Ø	max. 4000 tex	0.35 - 0.90 mm Ø	✓
DTS-5000	50-5000	116	0.60 + 1.20 mm Ø	max. 5000 tex	0.40 - 1.00 mm Ø	✓
DTS-10K	0.1 - 10.00 daN	116	0.80 + 1.40 mm Ø	max. 10000 tex	0.70 - 1.40 mm Ø	✓
DTS-20K	0.2 - 20.00 daN	166	1.20 + 1.80 mm Ø	max. 20000 tex	1.00 - 1.80 mm Ø	✓
DTS-30K	0.3 - 30.00 daN	216	1.40 + 2.20 mm Ø	max. 30000 tex	1.20 - 2.00 mm Ø	✓
DTS-50K	0.5 - 50.00 daN	216	Steelrope 1.5 mm Ø (7x7x0.2)	max. 50000 tex	1.40 - 2.20 mm Ø	
DTS-60K-V1	0.6 - 60.00 daN	280	Steelrope 2.0 mm Ø (7x7x0.3)	max. 60000 tex	1.80 - 3.00 mm Ø	

Other measuring head widths
available on request.

* Depending on model, either width of filament guide or outer distance between outside guide rollers
** Suitable for 95% of applications (see also chart on page 11)

Guide Rollers

Model DTS

V-grooved	Line Speed V _{max} ... m/min	Roller Material
Standard	2000	Hard-coated aluminium
Code K	3500	Hard-coated aluminium
Code H	5000	Plasma-coated aluminium
Code T	1000	Plastic (POM) black
Code W	1000	Nickel-plated steel
Code ST	1000	Hardened steel
Code B	1000	Tempered steel for tire cord
Code CE2	1000	Aluminium ceramic-coated
Code V1	1000	Hard-coated aluminium (only for tension range 60 daN)
asymmetrical groove		(not for tension range 200 cN)
Code ASY	1000	Hard-coated aluminium
Code ASYB	1000	Tempered steel for tire cord – Gauge is without filament guide –
U-grooved		
Code U	2000	Hard-coated aluminium (not for tension range 200 cN)

Optional Accessories

Model DTS

Code MH	Mounting thread for online use
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Special calibration using customer supplied samples is available:
Please supply a sample of at least 5m in length.

→ see page E →

Specifications

DTS

Calibration:	According to SCHMIDT factory procedure
Accuracy:	5% to 100% of range: ±0.5% FS* and ±1 digit or better
Remaining range and other calibration material:	±3% FS* and ±1 digit or better
Memory for material curves:	1 for SCHMIDT calibration plus 4 for customized calibrations
Measuring units:	Force: cN, daN, g, kg, N or lb Thickness: mm or inch
Overrange:	Approx. 10% FS*, without accuracy guarantee
Overload protection:	100% FS*
Measuring principle:	Strain gauge bridge
Measuring roller deflection:	0.2 mm max.
Signal processing:	Digital, 16 bit A/D converter
Measuring frequency:	Max. 1 kHz (1000 measurings/sec.)
Display:	Graphic LCD
3 different displays:	Numeric, Numeric + bargraph, Numeric + X-Y-diagram (time tension)
Display update rate:	2 times per second
Memory:	MIN, MAX, PEAKS, AVG, STD and LAST
Thickness compensation:	Max. 2.5 mm (not for all models)
Temperature range:	10 - 45°C
Air humidity:	85% RH, max.
Power supply:	LiPo accumulator (about 40 hours of continuous use)
Housing material:	Die-cast aluminium
Housing dimensions:	265 x 78.5 x 46 mm (L x W x H)
Weight, net (gross):	Up to Model-50 K 875 g (1550 g) DTS-60K-V1 1040 g (2700 g)

* FS = Full Scale