TENSIOMETER ** code 1836C DE **

GHMIDT

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3 tension ranges from 0.5 - 50 cN to 1 - 200 cN. Cost-efficient electronic tension meter for measuring low tensions for measuring fibers and threads up to 200 tex, fine wires \emptyset 0.16 mm.

Hand-held device with slim filament guide and small guide rollers groove Ø 7.4 mm for limited access space, Handy, light weight tension meter with digital display for precision measurements.

Special Features

- Tension meter ZEF with easy to read LCD display

- Coloured, backlight TFT display with

3 different display modes

- numeric
- numeric with live bargraph
- numeric with graph (time-tension)
- The display rotates in 90° steps for better reading
- Automatic "Zero-Setting" in each measuring position using a special sensor technique
- Selectable units of measurement: cN, g, N and Ib
- Very high data sampling rate (internal 1 kHz)

- Storage of MIN, MAX, last reading, average and standard deviation per measuring interval

- User-set MIN and MAX alarms with indication of TFT display if reading is out of limits
- Adjustable electronic damping for better reading when tension fluctuates
- 3 separate calibration material memory locations for custom calibrations
- Menu set-up in English, German, Spanish and French language
- Slim filament guide with small guide rollers ideal for limited access space
- Simple, trouble free operation

- Filament guide and unique roller shifting mechanism ensure easy acquisition of the running material

- Light weight hand-held unit

Standard Features

- Everything in operator's view:
 - the guide rollers
 - the measuring material
 - the readings
- Ball-bearing mounted, V-grooved guide rollers





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- Tension meter with high-strength plastic housing
- LiPo accumulator (approx. 25 hours continuous operation) with AC adapter
- CE approved (tested for electromagnetic compatibility)
- Certificate of Compliance with the order 2.1, according EN 10204, included.
- Optionally available: Calibration report, code 1836.CC1.

- Optionally available: Inspection Certificate 3.1, according EN 10204, with calibration report, code 286.CC2.

Display with many possibilities



TFT-Display with 3 different display modes



Depending on the measuring position the TFT display is automatically rotating in 90° steps.

Available Models

MESDAN code	Model	Measuring Range	Resolution	Measuring Head Width*	Calibration Material**
1836C	ZEF-50	0.5 – 50.0 cN	0.1 cN	43 mm	PA: 0.12 mm Ø
1836D	ZEF-100	0.5 – 100.0 cN	0.1 cN	43 mm	PA: 0.12 mm Ø
1836E	ZEF-200	1.0 – 200.0 cN	0.1 cN	43 mm	PA: 0.12 mm Ø

Other units of measure are available, such as g.

* Width of filament guide

** Suitable for 95 % of applications – PA = Polyamide Monofilament

Calibration to customized material:

If process material differs significantly from the calibration material in diameter, rigidity or shape, special calibration using customer supplied samples is recommended. For this purpose a material sample of about 5 m should be supplied.





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Guide rollers

Odide Foliels					
Order-Code	Line Speed v _{max.} m/min	Roller Material			
Standard	900	Hard-coated aluminium			
Code K	2000	Hard-coated aluminium			
Code T	450	Plastic (POM) black			
Code W	450	Nickel-plated steel			

Standard accessories



USB AC adapter with 4 adapters (EU/USA/UK/AUS-NZ) for 100 – 240 V AC and charging cable for loading the accumulator

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Inspection Certificate 3.1 according DIN EN 10204 including a calibration report is optional available, code 286.CC2.



Delivery includes

Tension meter ZEF with carrying case, USB AC adapter with 4 adapters (EU/USA/UK/AUS-NZ), charging cable, operating instruction in German or English (as requested), Certificate of Compliance with the order 2.1 according EN 10204 free of charge.

Specifications

Calibration:	According to SCHMIDT factory procedure
Accuracy:	±1 % full scale ±1 digit or better typical ±0.5 % full scale
Measuring Units:	cN, g, N or lb, switchable
Overrange:	Approx. 10 % full scale, without accuracy guarantee
Overload protection:	200 % full scale
Measuring principle:	Strain gauge bridge
Measuring roller deflection:	Max. 0.5 mm
Signal processing:	Digital





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Damping:	Adjustable electronic damping, averaging
Sampling rate internal:	Approx. 1 kHz
Sampling rate:	250 Hz (250 readings/sec)
Display:	Colour-TFT 128 x 160
3 different displays:	Numeric Numeric with live bargraph Numeric with graph (time-tension)
Display update rate:	2 times per second
Memory:	Last, AVG, MIN, MAX, STD Dev
Auto power off:	After 3 minutes of non-use
Temperature range:	10 – 45 °C
Air humidity:	85 % RH, max.
Power supply:	LiPo accumulator (approx. 25 h continuous use, charging time approx. 3.5 h), USB AC adapter 100240 V AC with 4 adapters (EU/USA/UK/AUS-NZ)
Housing material:	Plastic (POM)
Dimensions (L x W x H):	157 x 85 x 32 mm
Weight, net (gross):	Approx. 200 g (approx. 600 g)
	Specifications subject to change without notice! s of the present leaflet have to be considered as purely indicative and not binding. ni del presente catalogo sono da ritenersi puramente indicative e non vincolanti.



