



B.N.C.TOOLING Co.,Ltd.

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SCHMIDT
control instruments

Tension Meter

4 Tension ranges available
from 1 - 200 cN up to 1 - 2000 cN

Tension Meter MST



Specifications

Calibration:	According to SCHMIDT factory procedure
Accuracy:	± 1 % from measuring value ± 1 digit or better
Overrange:	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, 24 bit A/D converter
Damping:	Adjustable electronic damping, averaging
Sampling rate internal:	Approx. 5 kHz
Sampling rate:	100 Hz: MIN-Peak and MAX Peak, 2 Hz: AVG, MIN, MAX
Display:	LCD backlighted, 4 digit, 11 mm high
Display update time:	2 times/sec.
Memory:	Max. 4000 values plus statistics
Output signal:	Analog: 0 – 2 V DC, linearized, sampling rate 100 Hz
Digital:	RS-232 (19200, 8, N, 1)
Vacuum base:	Adjustable height for measuring position above working plate 120 to 220 mm
Motor:	Take-up fixture with speed of 8 m/min
Temperature range:	10 – 45 °C
Air humidity:	85 % RH, max.
Power supply:	9 V E-Block, e. g. Long living 9 V Lithium (approx. 1 h during motor operation or 80 h during operation tension meter) or AC Adapter with 4 adapters (EU, USA, UK, AUS-NZL) for 100 – 240 V AC
Housing material:	Aluminium profile
Weight, net (gross):	Approx. 780 g (2000 g)



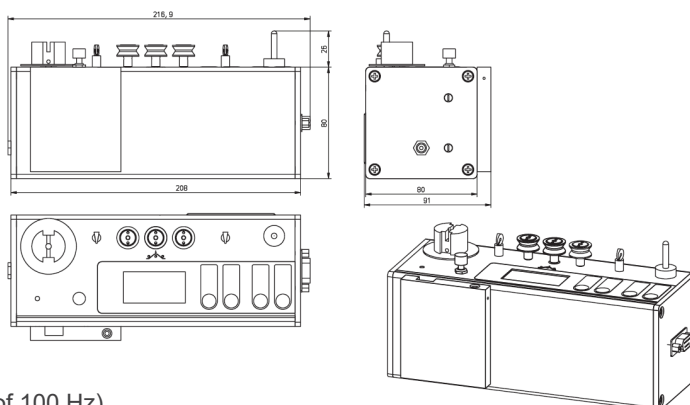
Special Features

- Electronic yarn tension meter MST with motorized take up with tension range up fixture
- The electronic tension meter ETX is the basis of this instrument
- Motorized take-up fixture to have constant speed of the thread 8 m/min
- Storage of AVG, MIN, MAX and PEAK tension values of a user set time frame. These values can be recalled in the display
- Adjustable electronic damping for better reading when tension is constantly fluctuating
- Vacuum base for positioning the unit on the work plate when tension is measured at the sewing machine
- Special fixture to determine shuttle tension
- Output signal:
 - analog 0 – 2 V DC
 - digital RS-232
- The tension meter MTS can be connected to a PC using the RS-232 interface to monitored readings constantly on a PC
- Memory of max. 4000 displayed tension values split up to 255 series of measurements and statistics
(Last, AVG, MIN and MAX of displayed values, MIN-PEAK and MAX-PEAK are values measured within a measuring frequency of 100 Hz)
- Content of the memory
- 4 different memory modes can be selected by the operator:
 - Mode S: only statistical values per series are displayed
 - Mode L: statistics plus 10 displayed values of each series of measurement
 - Mode C: statistics plus 4000 displayed values arbitrary split up to 255 series
 - Mode F: as C plus higher sampling rate of 100 Hz = values/s

Standard Features

- Battery or mains operation (MST-2000 only mains operation)
- Zero setting using a button before starting measuring
- Microprocessor technology with high steadiness
- Changeable units cN and g
- Easy to operate
- CE approved (tested for electromagnetic compatibility)
- Certificate of Compliance with the order 2.1 according EN 10204 is included
- Optionally available: Inspection Certificate 3.1 according EN 10204 with calibration report

Dimensions



Available Models

Model	Measuring Range	SCHMIDT Calibration Material*
MST-200	1 up to 200 cN	PA: 0.12 mm Ø
MST-500	1 up to 500 cN	PA: 0.2 mm Ø
MST-1000	1 up to 1000 cN	PA: 0.3 mm Ø
MST-2000	1 up to 2000 cN	PA: 0.5 mm Ø