



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

BNCTOOLING.COM
BNCTOOLINGSHOP.COM

69/90 Hatairat Rd., Minburi ,Minburi Bangkok (Thailand) 10510



Tension Meter

2 Tension ranges available
0.50 - 20.00 daN and to 0.5 - 50.0 daN

Tension Meter KXE

Specifications

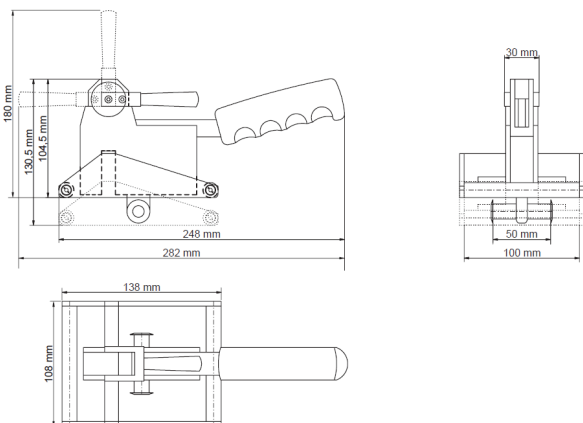
Calibration:	According to Schmidt factory procedure
Accuracy:	for 10 % to 90 % of range: ±1 % full scale and ±1 digit for remainder of range: ±3 % full scale and ±1 digit
Measuring unit:	daN
Overrange:	10 % full scale, without accuracy guarantee
Overload protection:	200 % full scale
Measuring principle:	Strain gauge bridge
Signal processing:	Digital 24 bit A/D converter
Damping:	Adjustable electronic damping (Moving averaging)
Measuring frequency internal:	Approx. 1 kHz internal
Measuring frequency:	100 Hz: MIN-Peak and MAX-Peak, 2 Hz: AVG, MIN, MAX
Display:	4 digit, 11 mm high
Display update time:	Approx. 2 times per second
Memory:	Max. 4000 values plus statistics
Output signal:	USB
Communications frequency:	Max. 100 readings/s
Connection cable:	Sensor to display unit 1.5 m
Temperature coefficient:	Gain: less than ± 0.01 % full scale /C°
Temperature range:	10 – 45 °C
Air humidity:	85 % RH, max.
Power supply:	Approx. after 3 minutes of non-use
Auto power off:	LiPo accumulator (approx. 60 h continuous use, charging time approx. 3.5 h), USB AC adapter 100 – 240 V AC with 4 adapters (EU/USA/UK/AUS-NZ)
Housing material:	Aluminium profile with plastic outer casing (PVC)
Dimensions:	See dimensions
Weight net:	Approx. 340 g

Sensor

Measuring rollers:	2 x 22 mm ball bearing rollers, total 50 mm
Width of outer rollers:	100 mm (ball bearing rollers)
Reference frame height adjustment:	24 mm
Material:	Anodized aluminium
Reference frame dimensions:	108 x 138 mm
Weight, net:	
Approx. 1000 g	
Total weight gross:	Approx. 1800 g

Dimensions

Tension Meter Model KXE





Standard Features

- The portable Tension meter KXE is made of a sensor and indicator
- The sensor can easily be engaged or disengaged also while the machine is running
- The unique sensor configuration provided two 22 mm wide cylindrical roller for the capture of two groups of yarns, one on each side of the sensor for measurement. Therefore the sensor will be measuring 50 mm of ends while the process is running – see “Operation”
- The display can be rotated by 180° for better reading
- Storage of last, average, Max, MIN, PEAK tension values during an operator set measuring period. These values can be recalled in the display or downloaded to a PC
- Adjustable electronic damping for better reading when tension is constantly, strongly fluctuating
- The indicator can be connected to a PC using the USB interface to monitor 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). Stored data can be transferred to a PC and analyzed using the FREE Tension Inspect
- 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
- Powered by rechargeable Lithium Polymer battery (60 h battery life with 3.5 h charge time) with a universal voltage AC-charger

Special Features

- Measurements can be made over the total width of the loom
- Sensor: ball-bearing mounted rollers – width – outer roller 100 mm, measuring roller 50 mm
- LCD display with illuminated background for better reading, update time 2 times a second
- 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



Tension meter KXE can be connected to a PC with the USB cable. With the FREE software SW-TI3 » Tension Inspect 3« readings can be displayed, statistically analyzed and saved. For more information see “Standard Accessories”

Available Models

Model	Tension Range	Resolution	SCHMIDT Calibration Material*
KXE-20K	0.50 – 20.00 daN	0.01 daN	fabric tape
KXE-50K	0.5 – 50.0 daN	0.1 daN	fabric tape