

Digital TENSION METER

Model ZEF

0.5–100.0 g
1–200 g

Model ZED

1–500 g

The New CHECK•LINE® models ZEF and ZED employ a strain-gauge system for accurately measuring the running line tensions on a wide variety of yarns, fibers and fine wires. Its trigger-operated roller shifting mechanism makes it easy to acquire the running material.

Single-button *automatic zero* permits operation in any orientation while maintaining highest accuracy.

Strain Gauge
Sensing for
Highest
Accuracy



FEATURES

- Easy-to-read LCD display with auto power off
- Simple 2-key operation
- Powered by two (2) AAA alkaline batteries
- ZEF V-grooved guide rollers are rated for speeds up to 900 m/min or, optionally, 2000 m/min
- ZED V-grooved guide rollers are rated for speeds up to 2000 m/min or, optionally, 3500 m/min
- Supplied in an attractive foam-fitted carrying case
- NIST Calibration available

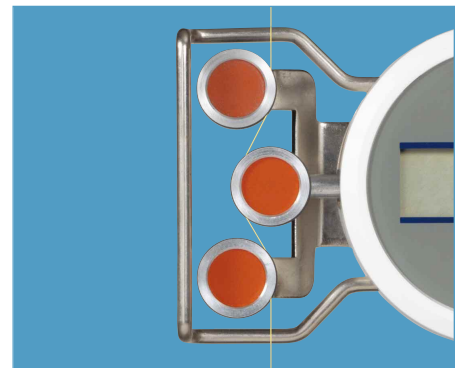
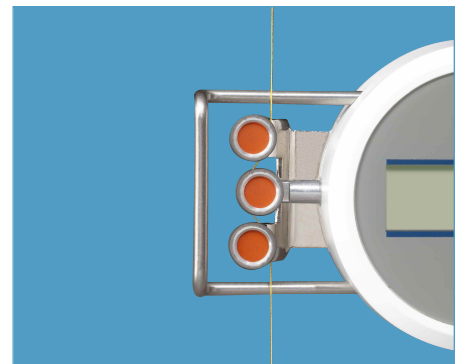
ZEF Models

Miniature rollers make these models ideal for delicate yarns/fibers and fine wires as well as those applications where access space is limited.

For Spandex and similar materials, specify model ZEF-100-T.

ZED Model

This model is recommended for all other applications where miniaturized rollers are not necessary.



Tension Ranges

ZEF Models

Model Number	Tension Range
ZEF-100-G	0.5–100.0 grams
ZEF-200-G	1–200 grams

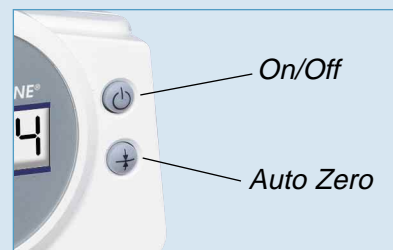
ZED Model

Model Number	Tension Range
ZED-500-G	1–500 grams

- Notes:**
1. All models can be calibrated in cN. Replace suffix "G" with suffix "CN". Example: ZED-500-CN.
 2. ZEF models are calibrated using a 0.12 mm diameter monofilament. ZED models are calibrated using a 0.2 mm diameter monofilament.
 3. Custom calibration with customer-supplied samples is optionally available. Inquire

Specifications

Measuring Principle	Strain Gauge
Accuracy	±1% Full Scale, ±1 digit
Outer Roller Distance	ZEF: 22mm (c:c) ZED: 38mm (c:c)
Overrange Readings	10% Full Scale
Overrange Protection	100% Full Scale
Sensing Roller Deflection	0.5mm (maximum)
Display Type	LCD, 10mm height
Display Update Rate	0.5 seconds
Natural Frequency	250 Hz
Auto Zero	±20% Full Scale
Battery Type	2 pcs., AAA (1.5 V)
Battery Life	30 Hours Continuous Use (Approx.)
Roller Material	Hard-coated Aluminum (standard) POM Plastic (Optional), specify suffix "-T"
Max Linear Speed	
ZEF:	900 m/min (standard) 2000 m/min (optional), <i>specify suffix "-K"</i> 450 m/min (option "T")
ZED:	2000 m/min (standard) 3500 m/min (optional), <i>specify suffix "-K"</i>
Operating Temperature	50 to 100 °F (10 to 45 °C)
Housing Material	High-Impact Plastic (POM)
Dimensions	6.2 x 3.3 x 1.3" (157 x 85 x 32 mm)
Weight	200 grams (Approx.)



All models are supplied in a foam-fitted carrying case