



3800 shown with rubber test sample.

Designed for plastics, rubber and elastomer testing,

these extensometers have very long measuring ranges.

Their unique design allows testing to failure and

minimizes interaction with the sample.



3800 shown with magnetic base (included).



Close-up showing one spring clip that attaches to sample.

The main body of this unique extensometer remains stationary during testing, held in position by the adjustable magnetic base included. Only the very light, small traveling heads move as the sample elongates during a test. These attach to the sample with small spring clips. Each head pulls a cord out from the extensometer as the head moves.

These models use high precision, low friction potentiometers, and, as a result, have a wide range of factory selectable outputs. The extensometer is driven by an excitation voltage and has output proportional to the input. They can be provided with high level outputs (approximately 2-8 VDC) or ones that mimic strain gaged devices (2-4 mV/V). When set to mimic strain gaged extensometers, the Model 3800 can be used with virtually any signal conditioning electronics designed for strain gaged sensors. The potentiometers employ a hybrid wire wound around conductive plastic, which provides infinite resolution and excellent long term stability. The output from the extensometer is readily interfaced with most existing test controllers, and may be directly input to data acquisition systems and chart recorders. Please let us know at the time of order what type of output and connector you require.

Contact Epsilon for your special testing requirements.

Features

- May be left on through specimen failure. The main body is stationary with only the lightweight traveling heads moving.
- Includes high quality foam lined case.
- Comes with an adjustable magnetic base for easy mounting.
- Large measuring range to 20 inches (500 mm).
- Low cost, high accuracy elastomer strain measurement.

SPECIFICATIONS

- Excitation: 5 to 10 VDC recommended, 12 VDC or VAC max.
- Output: Either 2 to 8 VDC, depending on model (at 10 VDC input) or 2 to 4 mV/V, nominal, selectable at time of order
- Linearity: $\leq 0.15\%$ of full scale measuring range
- Temperature Range: 1 °C to 125 °C (34 °F to 257 °F)
- Cable: Integral, ultra-flexible cable, 8 ft (2.5 m) standard
- Operating Force: 20 grams typical, each head

OPTIONS

- Can be provided with either:
 - High level outputs (approximately 2-8 VDC)
 - Or output that mimics strain gaged devices (2-4 mV/V nominal)
- 2 mV/V output for use with electronics designed for strain gaged sensors
- Shunt calibration module is available for units configured to mimic strain gaged sensors (see page 96)

ORDERING INFORMATION

Model 3800 Available Versions: ANY combination of measuring range and gage length listed below is available.

Gage Length		Measuring Range	
U.S.A.		DESIGNATION	
-0100	1.000"	-050T	+5.000"
-0200	2.000"	-100T	+10.000"
		-200T	+20.000"
METRIC			
-025M	25.0 mm	-125M	+125 mm
-050M	50.0 mm	-250M	+250 mm
		-500M	+500 mm

Model Number 3800- _____ - _____

Example: 3800-0100-100T: 1.0 inch gage length, +10 inches measuring range (+1000% strain), temperature range of 34 °F to 257 °F

