



## LONG TRAVEL EXTENSOMETER LTE-800 model

Adaptable to Universal Testing Machines to accurately measure the deformations between points in the specimens subjected to tensile stresses and to determine the modulus of elasticity or Young's modulus, elastic limit, elongation at break of the specimen



---

**TECHLAB**SYSTEMS

---

## Long Travel Extensometer LTE-800

The **LTE-800** model contact extensometer has been designed for the precise measurement of extension and deformation of a wide range of materials such as semi-rigid plastics, elastomers, rubbers, cables, wires, textiles and many more up to a thickness maximum sample size of 10 mm.

### APPLICABLE STANDARDS

ISO 5893 - ISO 5913 - ASTM E83

- For materials with high elongation up to 800mm between points
- Robust construction allows samples to be tested without failure
- Rubber pads absorb shock impacts when sample breaks to safeguard extensometer arms
- One path length available depending on the elongation of the sample to be tested for distances between clamps (Lo) 1 choice between 10-20-25-50-75-100 mm.
- A single cable with USB terminal type A-B (M / M) connecting to the PC that controls the testing machine, no more electronic components required.
- It is valid for tensile and compression tests
- Positioning of the rotational, horizontal and vertical extensometer to facilitate access and adjustment to the sample (depending on the mounting platform used)
- Low friction bearings and lightweight material arms minimize inertial forces allowing sample movement to be immediately transferred
- Uses “plug and play” technology once connected to the testing machine the extensometer is ready to test.
- Round and straight contact blades can be optionally supplied with the equipment to accommodate different types of samples.



The LTE-800 extensometer can be adjusted to MTE series testing machine. Plug-and-play technology makes it easy to install and calibrate.

The extensometer is designed with great adjustment flexibility to ensure easy and precise fit to the sample and the best ergonomic positioning to perform the test.

The unit can be supported to the test machine by means of an anchor bolt on the machine base allowing it to rotate from one side to the other to have the best access to the test area.

In addition, the unit can slide horizontally in or out of the specimen as well as vertically scrolling so that it can be used for different sizes of jaws and specimens.

To add flexibility, the extensometer arms can be locked open to simplify fitting to the sample.

#### **. ADAPTABLE TO UNIVERSAL SINGLE AND DOUBLE COLUMN TESTING MACHINES**



- Extensometer-machine fixing guide bar
- Machine mooring upper support
- Lower rod holding support + Nylon washer

#### **Example of mounting in a Testing Machine with 1 column of 800 mm travel (MTE-1L y MTE-5)**

Extensometer mounting platforms available (not included in the supply of the LTE-800):

- Code. 10013065 - Stand for LTE-800 Extensometer for MTE-1L and MTE-5 Testing Machines
- Code. 10013066 - Stand for LTE-800 Extensometer for MTE-5L Testing Machine
- Code. 10012280 - Stand for LTE-800 Extensometer for double Column Testing Machines MTE-10/25/50

TECHNICAL FEATURES	
<b>Measurement principle:</b>	Optical encoders
<b>Accuracy:</b>	0.5% of reading according to ISO 5893 - ISO 5913 - ASTM E83
<b>Range clamp opening:</b>	0-10 mm
<b>Maximum specimen width</b>	25 mm
<b>Maximum elongation:</b> (separation between movable arms )	800 mm
<b>Variable gauge length range available (One to choice) :</b>	Gauge 10-20-25-50-75-100 mm adjusting itself with an accuracy of 1%
<b>Speed range to follow</b>	1.0 – 1000 mm/min
<b>Temperature range</b>	From + 5°C to + 35°C in environmental conditions
<b>Resolution</b>	5 microns (0,005 mm)
<b>Maximum activation force:</b>	<0.2 N static and dynamic
<b>Dimensions</b>	1100 x 100 x 240 mm (H x W x D)
<b>Net weight:</b>	14 Kg

#### CONTENTS OF THE STANDARD SUPPLY:

- \* Contact Extensometer LTE-800 model
- \* 1 Set of two clamps + 4 fixing screws to the extensometer
- \* 2 Convex Clamping Blades
- \* 1 Position gauge of 25 mm length (or other length see table)
- \* 1 USB connection cable type A-B (M/M)
- \* 1 User Manual
- \* 3 metric Allen wrenches size 2.5 - 3 and 4 mm

NOTE: The stand support to fix the LTE-800 Extensometer on the Universal Testing Machine is offered separately. There are three stand models available depending on the travel of the Universal Testing Machine