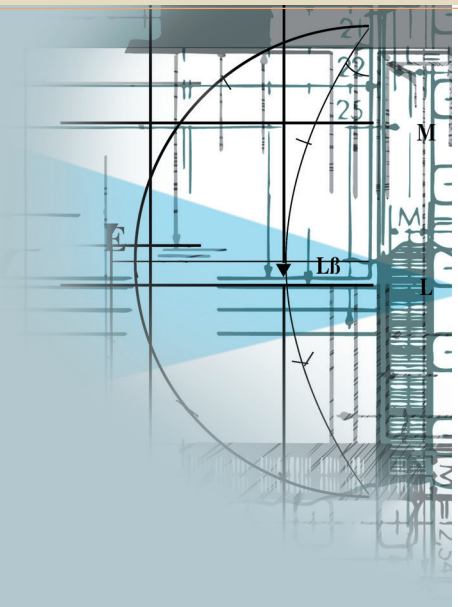


Designed for general purpose transverse or diametral strain measurement on axially loaded specimens. This model may be used simultaneously with the Model 3542 axial extensometer.

Model 3575 extensometer

Self-supporting on the test sample, these extensometers will work on any width or diameter specimen from 0 to 25 mm (0-1 inch). Most often they are used simultaneously with Epsilon's axial extensometers, and together these extensometers are suitable for measurement of Poisson's ratio per ASTM E132, for transverse measurements with anisotropic materials like many composites, and for r-value testing of sheet metal specimens per ASTM E517.

These units easily clip onto the sample and are held in place with an integral spring. Rounded contact surfaces maintain the position on the specimen. All models are high accuracy strain gaged units.

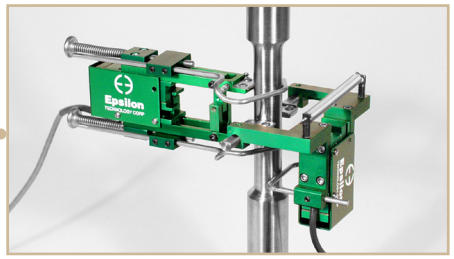
The Model 3575 extensometers are strain gaged devices, making them compatible with any electronics designed for strain gaged transducers. Most often they are connected to a test machine controller with electronics for a strain channel, and Epsilon will equip the extensometer with a compatible connector that is wired to plug directly into the controller. For systems lacking the required electronics, Epsilon can provide a variety of signal conditioning solutions that enable connecting to data acquisition systems or other equipment.

Model 3575 special long measuring range (custom model)

See the Model 3575 extensometer video

Poisson's Ratio and Sheet Metal r-Value Determination with Models 3575 and 3542

The Model 3575 may be used simultaneously with a Model 3542 axial extensometer to measure Poisson's ratio per ASTM E132 or r-value of sheet metal per ASTM E517.



Models 3542 and 3575 extensometers

Features

- **May be left on through specimen failure.**
- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- Suitable for measuring Poisson's ratio per ASTM E132 with most materials and specimens.
- All models will measure both positive and negative displacements.
- Easy to mount, with integral springs to keep the extensometer on the sample.
- Self-supporting on the specimen.
- All standard units have linearity readings of 0.20% or better.
- Includes the Epsilon Shunt Calibration System for on-site electrical calibration.
- Rugged, dual flexure design for strength and improved performance. Much stronger than single flexure designs, this also allows cyclic testing at higher frequencies.
- Includes high quality foam lined case and spare set of tool steel knife edges.

Specifications

Excitation:	5 to 10 VDC recommended, 12 VDC or VAC max.
Output:	2 to 4 mV/V, depending on model
Linearity:	≤0.20% of full scale measuring range, depending on model
Temperature Range:	Standard (-ST) is -40 °C to +100 °C (-40 °F to 210 °F) Optional (-LHT) is -270 °C to +200 °C (-454°F to 400 °F)
Cable:	Integral, ultra-flexible cable, 2.5 m (8 ft) standard
Specimen Size:	Works with samples up to 25 mm (1 inch) width or diameter

Options

Connectors to interface to nearly any brand of test equipment
Specialty knife edges (see page 106)

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Ordering Information

Model 3575 Available Versions: ANY combination of measuring range and temperature range listed below is available. *Other configurations may be available with special order; please contact Epsilon to discuss your requirements.*

Measuring Range

METRIC	
-050M	±0.5 mm
-100M	±1.0 mm
-250M	±2.5 mm
-300M	±3.0 mm
-500M	±5.0 mm
U.S.A.	
-020T	±0.020"
-050T	±0.050"
-100T	±0.100"
-150T	±0.150"
-200T	±0.200"

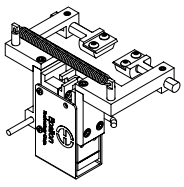
Model Number 3575- __ __ __ __ - __ __

Temperature Ranges

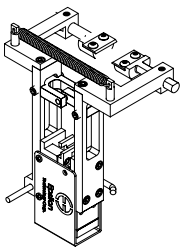
-LT	-270 ˚C to 100 ˚C (-454 ˚F to 210 ˚F)
-ST	-40 ˚C to 100 ˚C (-40 ˚F to 210 ˚F)
-HT1	-40 ˚C to 150 ˚C (-40 ˚F to 300 ˚F)
-HT2	-40 ˚C to 200 ˚C (-40 ˚F to 400 ˚F)
-LHT	-270 ˚C to 200 ˚C (-454 ˚F to 400 ˚F)

Example: 3575-050T-ST: ±0.050 inches measuring range, standard temperature option (-40 °F to 210 °F)

Visit our website at www.epsilontech.com
Contact us for your special testing requirements.



Typical version



±3 mm or ±5 mm measuring range

MODEL 3575 EXAMPLES