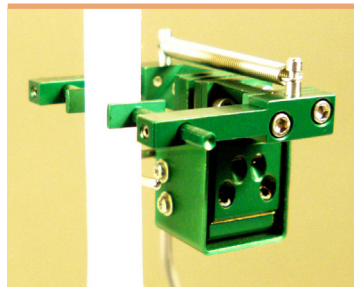


**A miniature extensometer designed for general purpose transverse or diametral strain measurements on small or thin specimens.**

**May be used simultaneously with the Model 3442 miniature axial extensometers or the Model 3542 axial extensometers.**



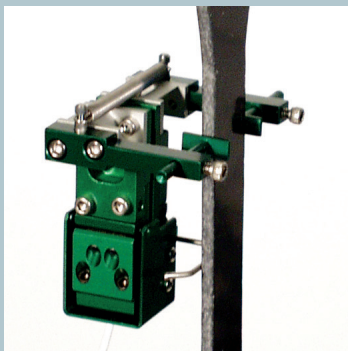
*Model 3475-050M-ST with  $\pm 0.50$  mm measuring range*

These very lightweight extensometers are self-supporting on the test sample. They are used for measuring transverse or diametral strain. Often they are used simultaneously with an Epsilon axial strain measuring extensometer to determine Poisson's ratio. They also are used for characterizing materials with anisotropic properties, such as with many composite materials.

This model clips easily onto the sample with an integral spring to hold the unit in place. It can be adjusted to work on any size sample from 0 to 25 mm (1 inch) width or diameter. The Model 3475 has an arm thickness of only 3.81 mm (0.15 inches), and will work simultaneously with any axial extensometer having sufficient clearance between arms (not all versions of the 3442 miniature extensometer can be used). Large radius contacts prevent the unit from digging into the samples. This model utilizes Epsilon's dual flexure design, allowing use in dynamic applications. All units have measuring ranges in both directions.

The Model 3475 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. The signal conditioning electronics for the extensometer is typically included with the test machine controller or may often be added. In this case the extensometer is shipped with the proper connector and wiring to plug directly into the electronics. For systems lacking the required electronics, Epsilon can provide a variety of solutions, allowing the extensometer output to be connected to data acquisition boards, chart recorders or other equipment.

*See the electronics section of this catalog for available signal conditioners and strain meters.*



*Model 3475-050T-ST with  $\pm 0.050$  inch measuring range*

## Features

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

## SPECIFICATIONS

*Excitation:* 5 to 10 VDC recommended, 12 VDC or VAC max.

*Output:* 2 to 4 mV/V, depending on model

*Linearity:*  $\leq 0.20\%$  of full scale measuring range

*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)

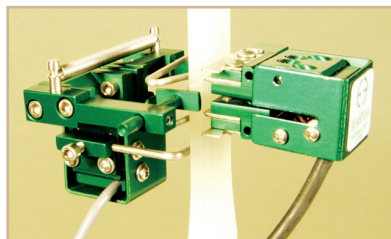
*Cable:* Integral, ultra-flexible cable, 2.5 m (8 ft m) standard

*Specimen Size:* Works with samples up to 25 mm (1 inch) width or diameter

## OPTIONS

Connectors to interface to nearly any brand test equipment

Shunt calibration module (see page 120)



### Model 3475 Transverse

Use with Model 3442 axial extensometer to measure Poisson's ratio.

## ORDERING INFORMATION

Model 3475 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.*

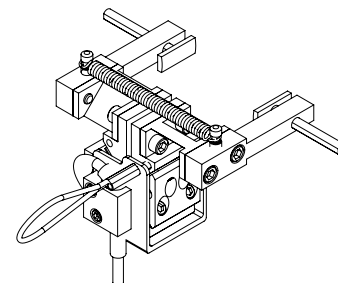
Measuring Range	
METRIC	
-025M	±0.25 mm
-050M	±0.50 mm
-100M	±1.00 mm
-125M	±1.25 mm
U.S.A.	
-010T	±0.010"
-020T	±0.020"
-040T	±0.040"
-050T	±0.050"

Model Number 3475- \_\_\_\_\_ - \_\_\_\_\_

Temperature Range	
-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: 3475-050M-LT: ±0.50 mm measuring range, low temperature option (-270 °C to 100 °C)*

Visit our website at [www.epsilontech.com](http://www.epsilontech.com)  
Contact us for your special testing requirements.



±0.5 mm measuring range

MODEL 3475 EXAMPLE