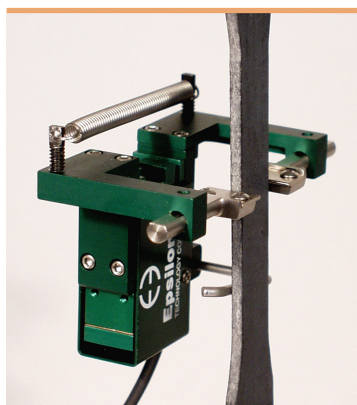


**Designed for general purpose transverse or diametral strain**

**measurement on axially loaded specimens. This model may be used**

**simultaneously with the Model 3542 axial extensometer.**



*Model 3575 extensometer*

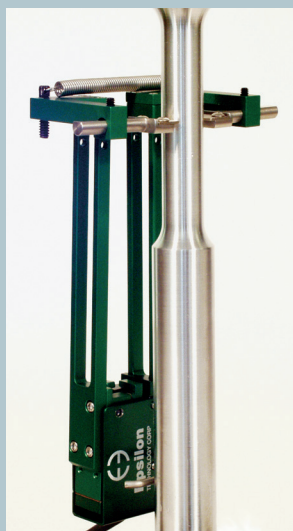
Self-supporting on the test sample, these extensometers will work on any width or diameter specimen from 0 to 25 mm (1 inch). They are commonly used for measurement of Poisson's ratio, for transverse measurements with anisotropic materials like many composites and for sheet metal testing such as r-value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

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


strain gaged units, compatible with most test controllers.

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. 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 3575 special long measuring range*

 See the Model 3575 extensometer video

#### **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 r-value. Many researchers are now using only this single lateral measurement for their tests, rather than the older method using three manual measurements. An alternative unit with dual lateral measurements is the Model 3575AVG, which averages transverse readings over two locations.



*Models 3575 and 3542 extensometers*

## 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 and spare set of tool steel knife edges.
- 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, depending on model

*Temperature Range:* Standard (-ST) is  $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $210^{\circ}\text{F}$ )  
Optional (-LHT) is  $-270^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$  ( $-454^{\circ}\text{F}$  to  $400^{\circ}\text{F}$ )

*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 test equipment

Shunt calibration module (see page 120)

Specialty knife edges (see page 100)



## ORDERING INFORMATION

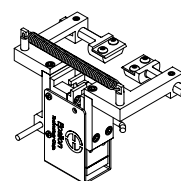
Model 3575 Available Versions: ANY combination of measuring range and temperature range listed below is available. Other configurations may be available with special order; please contact Epsilon to discuss your requirements.

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

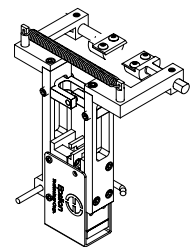
Model Number 3575- \_ \_ \_ \_ - \_ \_

Temperature Ranges	
-LT	$-270^{\circ}\text{C}$ to $100^{\circ}\text{C}$ ( $-454^{\circ}\text{F}$ to $210^{\circ}\text{F}$ )
-ST	$-40^{\circ}\text{C}$ to $100^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ to $210^{\circ}\text{F}$ )
-HT1	$-40^{\circ}\text{C}$ to $150^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ to $300^{\circ}\text{F}$ )
-HT2	$-40^{\circ}\text{C}$ to $200^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ to $400^{\circ}\text{F}$ )
-LHT	$-270^{\circ}\text{C}$ to $200^{\circ}\text{C}$ ( $-454^{\circ}\text{F}$ to $400^{\circ}\text{F}$ )

Example: 3575-050T-ST:  $\pm 0.050$  inches measuring range, standard temperature option ( $-40^{\circ}\text{F}$  to  $210^{\circ}\text{F}$ )



Typical version



$\pm 3$  mm or  $\pm 5$  mm measuring range

## MODEL 3575 EXAMPLES