3542L with 8 inch gage length and ±0.4 inches measuring range.

3542L with 500 mm gage length and ±10 mm measuring range.

3442L in foam lined storage case (included).

Long gage length extensometers with gage lengths greater than 2 inches (50 mm) for tensile and compression testing. These units have been specially designed for long gage length applications where low level strain measurements are required.

The dual flexure design makes the 3542L very rugged and insensitive to vibrations. These extensometers are designed for testing a wide range of materials, including metals, plastics, composites and ceramics. Epsilon's Model 3543 is recommended for applications requiring long gage lengths and larger measuring ranges.

The Model 3542L comes standard with Epsilon's quick attach kit, making it easy to mount the extensometer on the test specimen. The quick attach kit can be removed, allowing mounting of the extensometer with springs or rubber bands.

The 3542L 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.*

Contact Epsilon for your special testing requirements.

Features

- **May be left on through specimen failure.**
- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- All models can measure in both tension and compression and can be used for cyclic testing.
- Mechanical overtravel stops in both directions.
- All units meet existing ASTM class B-1 and ISO 9513, class 0,5 requirements for accuracy.
- Hardened tool steel knife edges are easily replaced. A spare set comes with every extensometer.
- High and low temperature options extend operation from as low as -265 °C (-450 °F) to +175 °C (350 °F).
- Includes high quality foam lined case.
- Replaceable arms and spacers for ease of repair. This also allows changing the gage length for different test requirements.
- Rugged, dual flexure design for strength and improved performance. Much stronger than single flexure designs, this also allows cyclic testing at higher frequencies.
- Standard quick attach kit allows quick mounting to specimens.

Specifications

Excitation:	5 to 10 VDC recommended, 12 VDC or VAC max.
Output:	2 to 4 mV/V, nominal, depending on model
Linearity:	0.10% to 0.15% of full scale measuring range, depending on model
Temperature Range:	Standard (-ST) is -40 °C to +100 °C (-40 °F to 210°F)
Cable:	Integral, ultra-flexible cable, 8 ft (2.5 m) standard
Standard Quick Attach Kit:	Fits round samples up to 1.0 inch diameter (25 mm) and flats to 0.5 inch thick by 1.25 inch wide (12 mm by 31 mm)
Operating Force:	Depends on model configuration, less than 30 g typically

Options

Quick attach kit wire forms for large specimens
Connectors to interface to nearly any brand test equipment
Shunt calibration module (see page 96)
Adapter kits to change gage lengths
Specialty knife edges (see page 97)

Ordering Information

Model 3542L Available Versions: ANY combination of gage length, measuring range and temperature range listed below is available, except as noted. *Larger gage lengths are available on special order.*

Gage Length

U.S.A.	
-0400	4.000"
-0600	6.000"
-0800	8.000"
-1000	10.000"
-2000	20.000"
METRIC	
-100M	100 mm
-150M	150 mm
-200M	200 mm
-250M	250 mm
-500M	500 mm

Measuring Range

DESIGNATION	
-010T	±0.10"
-025T	±0.25"
-050T	±0.50"
METRIC	
-002M	±2.5 mm
-006M	±6.0 mm
-012M	±12.5 mm

Model Number 3542L- __ __ __ __ - __ __ __ - __ __

Temperature Range

-LT	-265 °C to 100 °C (-450 °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 175 °C (-40 °F to 350 °F)[1]
-LHT	-265 °C to 175 °C (-450 °F to 350 °F)[1]

[1] *Short term use to 200 °C (400 °F) acceptable.*

Example: *3542L-0800-050T-ST: 8.000 inch gage length, ±0.50 inches measuring range, standard temperature option (-40 °F to 210 °F)*