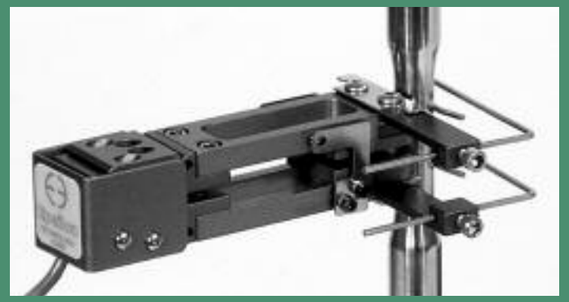


3442 with 8 mm gage length and +20/-10% strain range.

3442 with 6 mm gage length and ±10% gage range.

3442 with 0.25" gage length and ±10% strain range.

3442 in foam lined storage case (included).

3442 with optional extended knife edges.

3442-0100-005-ST with 1.0" gage length (special order).

Very small and rugged, yet ultra-light weight, these units are widely used for testing small and delicate samples. Ideal for many biomedical tests, as well as for wire and thin sheet materials. Also great for low cycle fatigue testing where short samples are used.

Weighing as little as 8 grams, these tiny extensometers also have very low operating force, resulting in low specimen contact force and influence. All use an Epsilon proprietary dual flexure design, which makes them very rugged for their size. Most are only 0.6 inches tall (15.25 mm). These extensometers will fit in the small space between grips, which usually results when small test samples are used.

The Model 3442 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 3442 with Compression Fixture.

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.
- Most standard 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.

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 0.5 inch diameter (12 mm) and flats to 0.5 inch thick by 1.0 inch wide (12 mm by 25 mm)
Operating Force:	10 to 20 g typical

Options

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)
Special coatings and stainless steel knife edges available for biomedical tests

Alternate Mounting Methods

Using springs (included). *Using rubber bands (included).*

Ordering Information

Model 3442 Available Versions: ANY combination of gage length, measuring range and temperature range listed below is available, except as noted. *Available in intermediate and larger gage lengths on special order.*

Gage Length

U.S.A.	
-0025	0.250"
-0050	0.500"
-0064	0.640"
METRIC	
-003M[1]	3.0 mm
-004M[1]	4.0 mm
-005M[1]	5.0 mm
-006M	6.0 mm
-008M	8.0 mm
-010M	10.0 mm
-012M	12.0 mm

Measuring Range

	% STRAIN	LINEARITY
-005[2]	±5%	0.10%
-010	±10%	
-020	+20%/-10%	0.15%
-025	+25%/-10%	
-050	+50%/-5%	
-100	+100%/-5%	

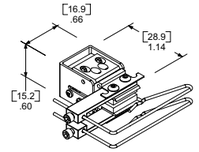
Model Number 3442 - __ __ __ __ - __ __ __ - __ __

Temperature Range

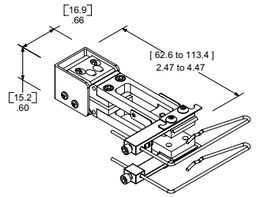
-LT	-265 ˚C to 100 ˚C (-450 ˚F to 210 ˚F)
-ST	-40 ˚C to 100 ˚C (-40 ˚F to 210 ˚F)
-HT1	-40 ˚C to 150 ˚C (-40 ˚F to 300 ˚F)
-HT2	-40 ˚C to 200 ˚C (-40 ˚F to 400 ˚F)
-LHT	-265 ˚C to 200 ˚C (-450 ˚F to 400 ˚F)

1 *Special order.*
2 *5% strain range not available in 3 or 4 mm gage length versions.*

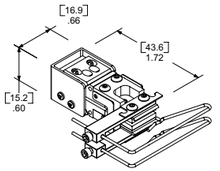
Example: *3442-008M-010-ST: 8.0 mm gage length, ±10% measuring range, standard temperature range (-40 ˚C to 100 ˚C)*



3442 LOW MEASURING RANGE



3442 HIGH MEASURING RANGE



3442 MEDIUM MEASURING RANGE

DIMENSIONS: [mm] inches