

Models 3675 and 3555 extensometers

For tests in environmental chambers where the entire extensometer must be exposed to the heat. Designed for transverse or diametral strain measurement at temperatures up to 540 °C (1000 °F) without any cooling. The 3675 extensometer may be used simultaneously

with Epsilon's Model 3555 axial extensometer.



These high accuracy gages are designed for testing at elevated temperatures, much higher than strain gaged based extensometers. The Model 3675 uses a high temperature capacitive sensor and can operate without any cooling at the upper temperature limit of most environmental chambers used in materials testing.

Most often these extensometers are used simultaneously with the Model 3555 axial extensometer for measuring Poisson's ratio or materials characterization for anisotropic

materials like many composites. These units clip easily onto test specimens. A high temperature nickel alloy spring is used to create the force to hold the self-supporting extensometer in place on the sample. It can be used on samples up to 1 inch (25 mm) in width or diameter.

These transverse units are supplied with signal conditioning electronics. The extensioneter and electronics are factory calibrated. The analog output voltage is typically calibrated for 0 to 10 VDC (other ranges are available on request). This can be used directly by data acquisition systems. It usually can be routed to a DC input channel on most test machine controllers as well.

Features

- May be left on through specimen failure.
- Capacitive signal conditioner and power supply included. Provides high level DC voltage output with low noise. Easily interfaced to test controllers data acquisition boards and chart recorders.
- Shipped fully calibrated with electronics (traceable to NPL (UK)) with user specified voltage output.
- All models will measure both positive and negative displacements.
- All standard units have linearity readings of 0.15% or better.
- Includes high quality foam lined case and spare set of tool steel knife edg
- Rugged, dual flexure design for strength and improved performance. Muc stronger than single flexure designs, this also allows cyclic testing at high frequencies.
- Self-supporting on the specimen.

SPECIFICATIONS

| Input: | Includes power supply for your country (specify) | |
|--------------------|---|--|
| Output: | User specified, +/-5 VDC or +/-10VDC typical | |
| Linearity: | ≤0.15% of full scale measuring range | |
| Temperature Range: | Elevated temperature use to 540 °C (1000 °F) | |
| Cable: | Triaxial ceramic fiber insulated cable 2 ft (0.6 m) plu 10 ft (3 m) room temperature extension cable | |
| Specimen Size: | Works with samples up to 1 inch (25 mm) width or diameter | |
| Environment: | Recommended for elevated temperature testing in air or some other gases | |

OPTIONS

Connectors to interface to nearly any brand test equipment Specialty knife edges (see page 105)







ORDERING INFORMATION

Model 3675 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.*

| ς, | Measuring Range | |
|-----------------|--|--|
| | U.S.A. -010T -020T -040T -080T | ±0.010" ±0.020" ±0.040" ±0.080" |
| es. h ner | METRIC -025M -050M -100M -200M | ±0.25 mm ±0.50 mm ±1.00 mm ±2.00 mm |

Model Number 3675-

Example: 3675-010T: ±0.010 inch measuring range

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



MODEL 3675 EXAMPLE