



Model 3580 on split furnace.

For transverse or diametral strain measurements at temperatures to 1000 °C (1832 °F). These extensometers may be used with furnaces having a side entry slot for an extensometer or with induction heating systems. They utilize a proprietary, rugged dual flexure design.



Model 3580.

This model is for general purpose diametral strain measurement with furnace and induction heating systems. Quartz rods and water-cooling allow the unit to be used for high temperature testing of metals, ceramics and composites. With induction heating, this model often can be used without water-cooling.

When used in furnaces, the extensometer is often mounted directly to the furnace side cut-out. Optional load frame mounting brackets are available for supporting the extensometer in cases where furnace mounting is not possible. These optional mounts are used with induction heating or furnaces systems.

The Model 3580 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.

Contact Epsilon for help with configuring a system to meet your needs.

Epsilon also offers the Model 2050 constant temperature water re-circulating bath.

Features

- May be left on through specimen failure.
- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- All standard units meet existing ASTM class B-1 and ISO 9513, class 0,5 requirements for accuracy.
- Each unit comes with a spare set of quartz rods, universal water-cooled mounting bracket and a foam lined storage case.
- Rugged, dual flexure design for strength and improved performance. Much stronger than single flexure designs, this also allows cyclic testing at higher frequencies.
- Versions available for use in vacuum environments (consult factory).

SPECIFICATIONS

- Excitation: 5 to 10 VDC recommended, 12 VDC or VAC max.
- Output: 2 to 4 mV/V nominal, depending on model
- Linearity: ≤0.15% of full scale measuring range, depending on model
- Temperature Range: Standard is -40 °C to +1000 °C (-40 °F to 1832 °F)
- Cable: Integral, ultra-flexible cable, 8 ft (2.5 m) standard
- Specimen Size: Works with samples 0.18 to 0.63 inch diameters (4.5 to 16 mm)
- Contact Force: Adjustable, 100 to 300 g typical

OPTIONS

- Connectors to interface to nearly any brand test equipment
- Shunt calibration module (see page 96)
- Special rods are available for large specimens
- Model 2050 constant temperature water re-circulating bath

Model 2050 Constant Temperature Re-Circulation Bath.
 This bath provides the controlled temperature flow for water-cooled extensometers. Capable of cooling or heating the water, temperature is maintained within 0.1 °C. These units are ideal for obtaining the maximum stability of any water-cooled extensometer.



ORDERING INFORMATION

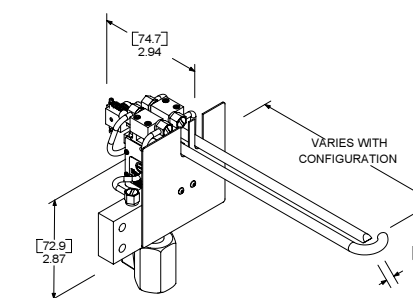
Model 3580 Available Versions: Quartz rod lengths are made to fit furnaces as required. Please provide furnace dimensions at the time of order.

Measuring Range	
DESIGNATION	
-020T	±0.020"
-030T	±0.030"
-060T	±0.060"
-075T	±0.075"
-200T ¹	+0.200"
-050M	±0.50 mm
-075M	±0.75 mm
-150M	±1.50 mm
-200M ¹	±2.00 mm
-500M ¹	+5.00 mm

Model Number 3580- _____

¹ Special order only. Total measuring range either in tension or compression.

Example: 3580-030T: ±0.030 inches measuring range, temperature range of -40 °F to 1832 °F



MODEL 3580

DIMENSIONS: [mm] inches