



3548 with an open furnace showing specimen engagement.

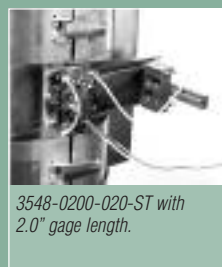
High temperature extensometers for use in split type materials testing furnaces. Water-cooled and furnace bracket mounted, these are for use to 1200 °C (2200 °F). The high temperature option allows use to 1600 °C (2900 °F).

These extensometers mount on a water-cooled bracket mounted on the furnace side cut-out or with other support brackets. The standard temperature version (to 1200 °C) is supplied with high purity alumina rods. The high temperature option is furnished with alpha grade silicon carbide rods. Rods are made to order to the length required for your furnace. Mounting brackets may be integrated with the furnace cut-out. Epsilon can also provide optional load frame mounting brackets to fit your test frame.

The Model 3548 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.



3548 in foam lined storage case (included).



3548-0200-020-ST with 2.0" gage length.

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 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. Rod length configurations can affect the final class rating. Measuring ranges greater than 50% will meet these class requirements in lower calibration ranges.
- All units come with either high purity alumina ceramic rods (1200 °C) or alpha grade silicon carbide rods (1600 °C).
- Rugged, dual flexure design for strength and improved performance.
- Includes high quality foam lined case and a spare set of ceramic rods.
- 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 (-ST) is to 1200 °C (2200 °F), optional (-HT) 1600 °C (2900 °F)
- Cable: Integral, ultra-flexible cable, 8 ft (2.5 m) standard
- Contact Force: Adjustable up to 500 g
- Operating Force: <30 g typical

### OPTIONS

- Connectors to interface to nearly any brand test equipment
- Shunt calibration module (see page 96)
- High temperature option (-HT suffix) for use to 1600 °C
- Model 2050 constant temperature water re-circulating bath
- Load frame mounting brackets
- Specify rod tip style desired. Available choice are:
  - Standard chisel, vee-chisel, and conical point (see page 97)

### 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 3548 Available Versions: ANY combination of gage length, measuring range and temperature range listed below is available, except as noted. Ceramic rod lengths are made to fit furnaces as required. Please provide furnace dimensions at the time of order.

| Gage Length |         |
|-------------|---------|
| U.S.A.      |         |
| -0050       | 0.500"  |
| -0100       | 1.000"  |
| -0200       | 2.000"  |
| METRIC      |         |
| -010M       | 10.0 mm |
| -025M       | 25.0 mm |
| -050M       | 50.0 mm |

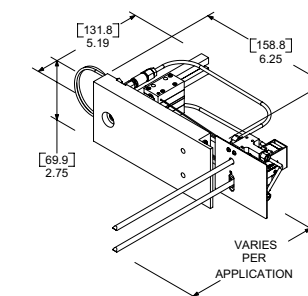
| Measuring Range   |           |
|-------------------|-----------|
| DESIGNATION       | % STRAIN  |
| -010              | ±10%      |
| -020              | ±20%      |
| -050              | +50%/-25% |
| -100 <sup>1</sup> | +100%/-5% |

Model Number 3548 - \_\_\_\_\_

| Temperature Range |   |
|-------------------|---|
| -ST               | Ambient to 1200 °C (Ambient to 2200 °F) |
| -HT               | Ambient to 1600 °C (Ambient to 2900 °F) |

<sup>1</sup> Not available in 2 inch and 50 mm gage lengths.

Example: 3548-0100-020-HT: 1.0 inch gage length, ±20% measuring range, high temperature option (room temperature to 2900 °F)



TYPICAL MODEL 3548 EXTENSOMETER DIMENSIONS: [mm] inches