Extensometers for measuring elongation of rebar coupler, splice, and sleeve assemblies. Use for tension, cyclic, slip, and differential elongation tests.

Model 3567 specimen attachment collar with extensometer installed

The Model 3567 extensometer may be used for ASTM A1034 testing to measure strain and elongation during tension testing of rebar splice assemblies consisting of rebar and rebar couplers, coupling sleeves and splices. The extensometer measures strain through yield and may be used for tension, cyclic, slip, and differential elongation tests.

The extensometer may be left on through failure of splice assemblies when failure occurs at the splice. It is designed to automatically release from the rebar splice assembly when the extensometer reaches full scale extension at 12.5 mm (0.5 inches), typically after specimen yield. The extensometer is suspended by a tether for fall protection after it is released from the specimen. The upper arm incorporates mechanical stops that protect the extensometer from over travel.

The Model 3567 is not rated for measuring un-spliced rebar through failure. Use Models 3543 or Epsilon ONE when testing un-spliced rebar.

The unit is self-supporting and mounts to the rebar using attachment collars above and below the coupler. The collars simply clamp on without any need for rebar surface preparation. Collars are available to work with all common rebar and coupling / splice sizes, including 6 – 60 mm (#2 – #18J) diameter rebar. Extensometer gauge length may be adjusted to any value from 95 – 675 mm (3.74 – 26.6 inches) with the standard model, and optionally up to 975 mm (38.4 inches).

The Model 3567 consists of two simultaneous, separate measurements which are averaged to measure axial elongation. A configuration that uses three separate measurements for improved test accuracy is optional.

Model 3567 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 and Epsilon will equip the extensometer with compatible connectors that are wired to plug directly into the controller. For systems lacking the required electronics, Epsilon can provide a variety of solutions for signal conditioning and connection to data acquisition systems or other equipment.

Option for average of three measurements (rebar coupler not shown)

Model 3567 with mounting collars (rebar coupler not shown)

Features

- **Specifically designed to be left on through specimen failure** – extensometer automatically releases from the rebar splice assembly upon reaching the full scale of the extensometer.
- One system may be used for all common rebar coupling / splice sizes, including 6-60 mm (#2-#18J) diameter rebar.
- Replaces homemade clip gages and LVDTs with a reliable, repeatable solution.
- Durable system includes these features:
  - A tether suspends the extensometer after automatic release and provides fall protection
  - The extensometer's upper arm has integral stops to protect it from over travel
- Exceeds ASTM A1034 requirements for extensometer accuracy; meets ASTM class B-1 and ISO 9513 class 0,5 accuracy requirements.
- Averages two or three measurements for accurate and repeatable measurements.
- Extension bars enable gauge lengths up to 975 mm (38.4 inches).
- Replaceable components for ease of repair.
- Full bridge, 350 ohm strain gaged design for compatibility with nearly any test system.
- Includes the Epsilon Shunt Calibration System for on-site electrical calibration.
- Includes high quality foam lined case.

Specifications

Excitation:	5 to 10 VDC recommended, 12 VDC or VAC max.
Output:	2 to 4 mV/V
Linearity:	≤0.15% of full scale measuring range
Temperature Range:	Standard (-ST) is -40 °C to +100 °C (-40 °F to 210 °F)
Cable:	Integral, ultra-flexible cable, 2.5 m (8 ft) standard
Specimen Size:	Rebar diameter 8 – 36 mm (#3 – #11) standard, 6 – 60 mm (#2 – #18J) optional; coupler diameter up to 102 mm (4.0 inches)
Gauge Length:	95 – 675 mm (3.74 – 26.6 inches) standard, up to 975 mm (38.4 inches) optional

Options

Gauge length adapters may be added for gauge lengths over 675 mm (26.6 inches) to extend the maximum gauge length to 975 mm (38.4 inches)

Collars for 6 – 14 mm (#2 - #4) and 32 – 60 mm (#10 - #18J) diameter rebar are optional; collars for 8 – 36 mm (#3 – #11) diameter rebar are included standard

Average of two or three separate measurements

Average output at a single connector, or separate outputs and connectors for each measurement to enable subsequent averaging

Connectors to interface to nearly any brand of test equipment

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Ordering Information

Specify your required range of rebar diameters, range of extensometer gauge lengths, number of measurements (two or three), output at a single connector or multiple connectors, and connector type at time of ordering.

Model 3567 Available Versions: ANY combination of gauge length, measuring range and temperature range listed is available, except as noted. Other configurations may be available with special order; please contact Epsilon to discuss your requirements.

Gauge Length

METRIC	
-675M	95 to 675 mm
-975M	95 to 975 mm
U.S.A.	
-2600	3.7" to 26"
-3800	3.7" to 38"

Measuring Range

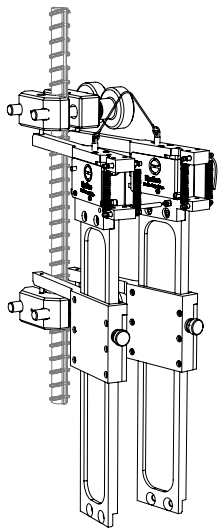
METRIC	
-0125M	+12.5 mm
U.S.A.	
-050T	+0.500"

Model Number 3567- __ - __ __ __ __ - __ __ __ __ - ST

Number of Measurements

2	**-2**
3	**-3**

Example: 3567-3-675M-0125M-ST: 3 measurements, 95 - 675 mm gauge length, +12.5 mm measuring range, standard temperature range (-40 °C to 100 °C)



MODEL 3567 EXAMPLE