



Epsilon's standard calibrator features 0.001 mm (50 microinches) resolution and has 50 mm (2 inches) of measuring range. The autozero button and digital display greatly simplify calibration of extensometers. The 3590 calibrator is useful for extensometer calibration and verification with test systems.



Model 3590 calibrator with Model 3542 axial extensometer



Model 3590 calibrator

When it comes time to calibrate your extensometers, these calibrators are easier to use and faster than any others on the market. They have enough measuring range to calibrate nearly all extensometers.

The digital display reads mm and changes to inches at the touch of a button. The autozero button is a great help in calibrating. Just press the button to start readings from zero. The digital display reduces operator error.

A wide range of adapters are available. The calibrator comes with round adapters (9.52 mm [0.375 inches] diameter) that work with many typical axial extensometers. Specialized adapters are available. For very long gauge length extensometers, a optional extension posts are available. An option is available for digital SPC output for interfacing with PCs. The calibrator is provided with a calibration traceable to NPL (UK standards organization).



Model 3590 calibrator storage case

**Model 3590 Adapters**

Enables use with a wide variety of extensometer models.



**Supplied with ISO 17025 accredited calibration**

## Features

- Digital display
- Autozero button simplifies readings
- Adapters and extension posts available for nearly any extensometer
- Foam lined case for storage included
- System fully calibrated traceable to NPL (UK standards organization)

## SPECIFICATIONS

<i>Measuring Range:</i>	50 mm (2 inch) maximum displacement
<i>Maximum Range:</i>	125 mm (0-5 inch) (maximum gauge length + displacement)*
<i>Accuracy:</i>	±0.004 mm/25 mm (±0.00015 in/in) Meets ASTM E83 Class B-2 for extensometers with gauge lengths ≥33 mm, and ASTM E83 Class C for extensometers with gauge lengths ≥7 mm; use model 3590VHR to meet ISO 9513 class requirements
<i>Resolution:</i>	0.001 mm (50 µin)
<i>Temperature Range:</i>	18 °C to 28 °C (64 °F to 82 °F) operation**, -10 °C to 60 °C (14 °F to 140 °F) storage
<i>Relative Humidity:</i>	<90% (non-condensing)
<i>Power Supply:</i>	2x SR44 Batteries (included), ~2 year life
<i>Weight:</i>	2.7 kg (6 lbs.) (standard configuration)
<i>Adapters:</i>	Ø9.52 mm (0.375 inch) adapter set included*

\* A range of extension columns and extensometer adapters are available - contact Epsilon

\*\*Recommended range



## OPTIONS

Optional extensometer adapter sets, extension posts, and horizontal configuration kit (partial list below, see website for complete list):

- 3590-01** Smooth, round 6.35 mm (0.25 inch) diameter adapters
  - 3590-02** Flat adapters
  - 3590-3549** Adapters for Model 3549
  - 3590-3648** Adapters for Model 3648
  - 3590-03** Adapters for clip-on fracture mechanics gages, for example Models 3541 and 7641
  - 3590-3548** Mounting bracket for Model 3548COD (requires 3590-03 adapters)
  - 3590-11** Transverse extensometer adapters (Models 3575, 3475, 3575AVG, 3580, 3565, 3544, 3911 & 3975)
  - 3590-11-KIT** Horizontal conversion kit for transverse extensometers – consists of legs for horizontal configuration, additional springs, and 3590-11 adapters; enables verification of transverse extensometers in the orientation that will be used for testing, as required by some calibration and verification standards
  - 3590-3580** Mounting bracket for Model 3580 transverse extensometer (includes 3590-11 adapters)
  - 3590-04** Transverse extensometer adapters (Model 3560-BIA)
  - 3590-04 KIT** Horizontal conversion kit for Model 3560-BIA – consists of legs for horizontal configuration, additional springs, and 3590-04 adapters; enables verification of Model 3560-BIA in the orientation that will be used for testing, as required by some calibration and verification standards
  - 3590-06** Adapters for large averaging extensometers (Models 3542RA and 3442RA1)
  - 3590-08** Adapters for Models 3910 and 3909
  - 3590-4013** Shear adapters for Model 4013
  - 3590-3421** Shear adapters for Model 3421
  - 3590-07** 100 mm (4 inch) extension post for long gauge length extensometers
  - 3590-55-10** 250 mm (10 inch) extension post for long gauge length extensometers
  - 3590-55-24** 600 mm (24 inch) extension post for long gauge length extensometers
- Custom – contact Epsilon for adapters to fit Models 7650A, 7650, 7651, and 3567  
 Note: Model 3590VHR and 3590 calibrators include 9.52 mm (0.375 inch) diameter smooth round adapters

WITH EPSILON'S IN-HOUSE LASER INTERFEROMETER SYSTEM, THE FULL CALIBRATOR SYSTEM CAN BE CALIBRATED TRACEABLE TO NPL. NO LONGER DO CUSTOMERS HAVE TO RELY ON MICROMETER HEAD ONLY OR POTENTIALLY ERROR-PRONE GAUGE BLOCK CALIBRATIONS FOR FULL SYSTEM CALIBRATIONS.

Standards Labs in most countries have signed a Mutual Recognition Arrangement, "CIPM MRA", [www.bipm.org/en/cipm-mra](http://www.bipm.org/en/cipm-mra), making the Standards Labs effectively equivalent and traceable to each other. This includes NIST in the USA, the NPL in the UK and many others. Services of the NPL are equivalent to those offered by NIST and are recognized by NIST through this agreement of reciprocity.

Visit our website at [www.epsilontech.com](http://www.epsilontech.com)  
 Contact us for your special testing requirements.