

Epsilon's very high resolution calibrator features 0.8 microinches (20 nanometers) resolution and has 2 inches (50 mm) of measuring range.

The 3590VHR is provided with software to display the calibrator readings and optional netbook PC or digital display. The 3590VHR calibrator meets the accuracy and resolution requirements for ASTM E83 Class B-I for a 6 mm gauge length and greater extensometers and ISO 9513 Class 0,5 over the full measuring range of the calibrator.



Model 3590VHR calibrator



Close-up of Model 3590VHR calibrator

The 3590VHR uses a coarse adjustment screw for large displacements, coupled with a fine adjustment screw that allows fine adjustment to within approximately 0.025 microns (about 1 micro inch). 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, and enough resolution to calibrate units with low measuring ranges.

The software provided reads in both inches and millimeters. The autozero function is a great help in calibrating. Just activate it to start readings from zero. The digital display reduces operator error.

A wide range of adapters are available. The calibrator comes with smooth round adapters, of 0.375 inches diameter (9.52 mm). For special adapters, contact Epsilon. For very long gauge length extensometers, an optional extension post is available. The calibrator is provided with a calibration traceable to NPL (UK standards organization).

Model 3590 Adapters
For all 3590 models.



Features

- Scale calibration traceable to NIST.
- System fully calibrated traceable to NPL (UK standards organization).
- Software for Windows based PC provided, a PC with a USB port is required.
- Optional Netbook PC or stand alone display available.
- Readings taken on the PC with included software may be save to a data file.
- Uses the same adapters as the model 3590 and 3590HR calibrators.
- Provided with a foam lined case for storage.



SPECIFICATIONS

- Measuring Range:* 2 in (50 mm) Maximum displacement
Maximum Range: 0-5 in (125 mm) (Maximum gauge length + displacement)*
Accuracy: $\pm 7.5 \mu\text{in}$ ($\pm 0.19 \mu\text{m}$) over any 0.00475 inch(0.12 mm) range
 Meets ASTM E83 Class B-1 for a 6 mm gauge length and greater extensometers and ISO 9513 Class 0,5 over the full measuring range of the calibrator
Resolution: 0.8 μin (20 nm)
Temperature Range: 18°C to 28°C (64°F to 82°F) operation**, -10°C to 60°C storage (14°F to 140°F)
Relative Humidity: < 90% (Non-condensing)
Connectivity: USB 1.1 & 2.0 interface, self-powered
Weight: 8 lbs (standard configuration)*
Adapters: Ø0.375" (9.52mm) posts included*
EMC Compliance: BS EN 61326-1: 2006
Environmental: EU Directive 2011/65/EU (RoHS)
 * Other options available upon request
 **Recommended range

Options for available adapter sets

- 3590-01 Smooth round posts, 0.25 inches diameter (6.35 mm)
 3590-02 Adapters for flat specimens
 3590-03 Adapters for clip-on fracture mechanics gages
 3590-04 Transverse extensometer adapter (Model 3560)
 3590-11 Transverse extensometer adapters (Models 3575AVG, 3575, 3475, 3580, 3565, 3911 and 3975)
 3590-05 Circumferential extensometer adapters (Model 3544)
 3590-06 Adapters for large averaging extensometers (Models 3442RA and 3542RA)
 3590-07 4 inch (100 mm) extension post for long gauge length extensometers
 3590-55-10 10 inch (250 mm) extension post for long gauge length extensometers
 3590-55-24 24 inch (600 mm) extension post for long gauge length extensometers

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.

Epsilon is one of the only companies in the world with the capability to perform full system calibrations on high resolution extensometer calibrators.

With Epsilon high resolution systems, you are assured compliance. When looking for a calibrator to meet ASTM and ISO specifications, the accuracy of the device is key for compliance, which is why full system calibration is essential to meet ISO 9513 and ASTM E83 requirements.

Standards Labs in most countries have signed a Mutual Recognition Arrangement CIPM MRA. This includes the NPL in the UK, NIST in the USA and many others. This makes them effectively traceable to each other. Services of the NPL are equivalent to those offered by NIST and are recognized by NIST through this agreement of reciprocity.

www.bipm.org/en/cipm-mra/

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

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Supplied with ISO 17025 accredited calibration