TM0447

Calibration Certificate

3590VHR Calibration stand

Epsilon technology corp

Doc #: 5464.022726.1200	**Model:**	**3590VHR**	
	Model S/N:	**A5464**	
	Calibration Date:	**27-Feb-2026**	
	Ambient Temperature: (°F)	**71.9**	
	Humidity:	**27%**	
	Scale SN:	**2UMU77**	

XL-80 Laser, Calibrated **20-Nov-23**

S/N: 5FM252 Certificate Number: 5FM252-231120-00

Traceability Info

Model #	Certificate No.	Cal Date	Cal Lab
RUK27030	2022080011-LL03	6-Aug-22	NPL
MTE/A163	23-70302	7-Jun-23	Nationwide
XL80 REF5	86H576-231006-00	6-Oct-23	Renishaw

As Found / As Left (PASS, No Change)

For use in extensometer calibrations in accordance with ASTM E83, ISO 9513, or any other standards; the requirements of the standard should be used to determine the class to which any particular extensometer may be calibrated. This calibration stand was calibrated using a method developed at Epsilon Technology and detailed in the Calibration and Maintenance Procedure. The information on this certificate applies only to the item with the serial number listed above. Reference displacement and environmental conditions were measured using the laser interferometer listed on this certificate. The reference laser is routinely calibrated by an accredited laboratory, with traceability as indicated above.

Verified direction of travel is upward. Uncertainty of Calibration: U = 5.5µin, increasing to 16.9µin at 2.00in; coverage factor k=2, approximate confidence level 95%. Results below are raw data and are not compensated for temperature or uncertainty. It is the responsibility of the end user to determine if it is appropriate for your specific application. If more than one calibration certificate exists, the most recent should be considered to supercede all previous certificates.

Full Range, 0-2.0 (in)

Laser (in)	3590VHR (in)	Error (in)
0.000000	0.000000	0.000000
0.200016	0.200013	-0.000003
0.400062	0.400057	-0.000005
0.600024	0.600024	-0.000001
0.800005	0.799995	-0.000010
1.000027	1.000002	-0.000026
1.200024	1.199988	-0.000036
1.400028	1.399998	-0.000031
1.600024	1.600001	-0.000023
1.800021	1.799993	-0.000027
2.000009	1.999980	-0.000029
1.000029	1.000008	-0.000021
0.000011	0.000042	0.000030

Small Increments, from ~0.0 (in)

Laser (in)	3590VHR (in)	Error (in)
0.000000	0.000000	0.000000
0.001015	0.001013	-0.000001
0.002007	0.002006	-0.000001
0.003005	0.003003	-0.000001
0.005010	0.005008	-0.000001
0.010012	0.010012	0.000000
0.015003	0.015003	0.000001
0.020014	0.020013	-0.000001

Small Increments, from ~1.0 (in)

Laser (in)	3590VHR (in)	Error (in)
0.000000	0.000000	0.000000
0.000981	0.000981	0.000000
0.001981	0.001981	0.000000
0.002982	0.002981	-0.000001
0.004974	0.004973	-0.000001
0.009974	0.009969	-0.000005
0.014987	0.014980	-0.000007
0.020028	0.020021	-0.000007

Small Increments, from ~2.0 (in)

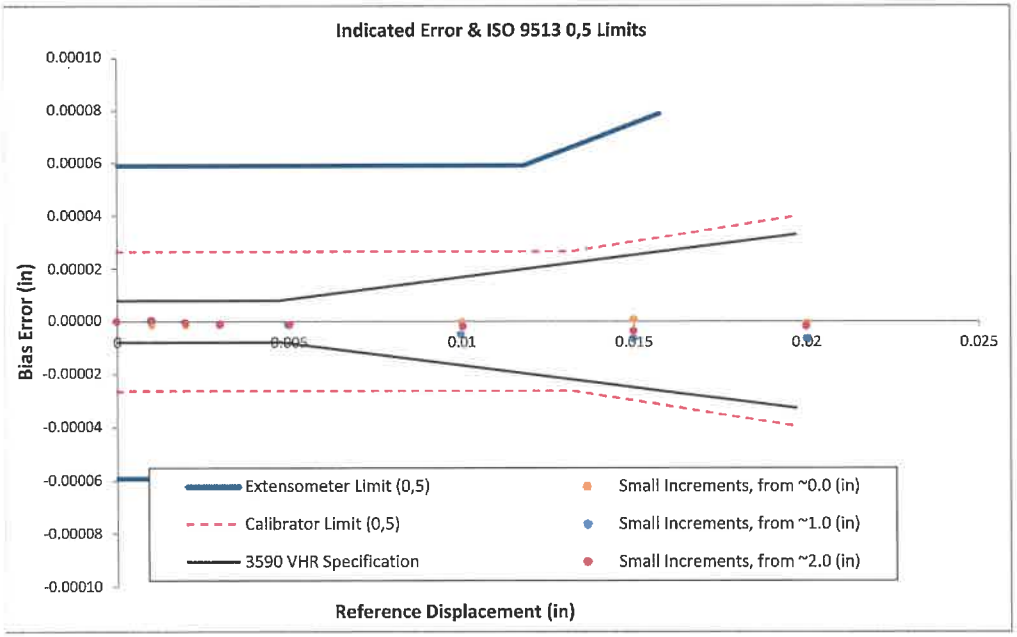
Laser (in)	3590VHR (in)	Error (in)
0.000000	0.000000	0.000000
0.001010	0.001011	0.000000
0.001989	0.001989	0.000000
0.003006	0.003005	-0.000001
0.005026	0.005024	-0.000001
0.010038	0.010036	-0.000002
0.015002	0.014998	-0.000004
0.019992	0.019990	-0.000002

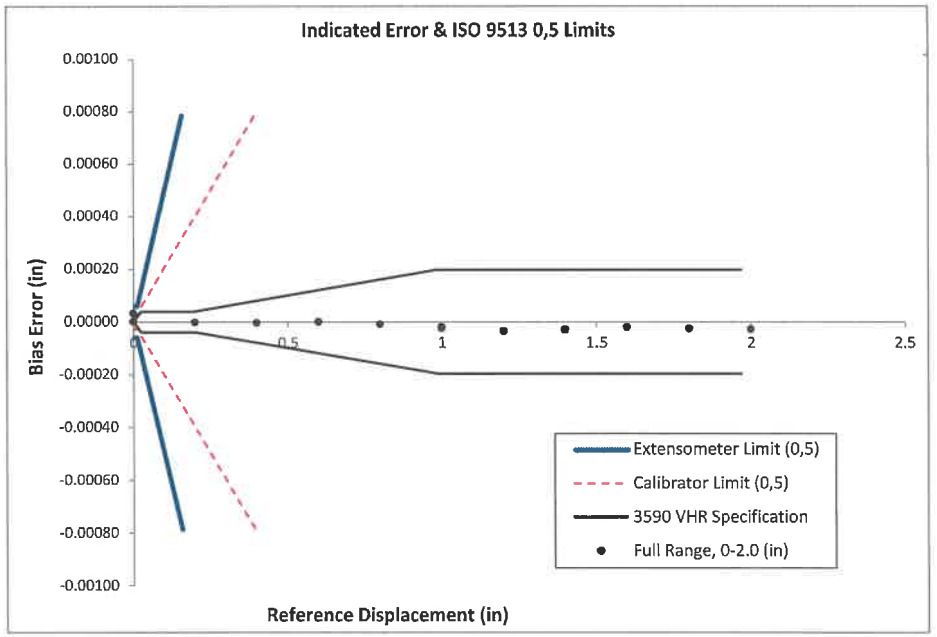
Meets manufacturer's accuracy specifications and
ISO 9513 Class 0,5 and
ASTM E83 Class B1 for gage lengths down to 6mm

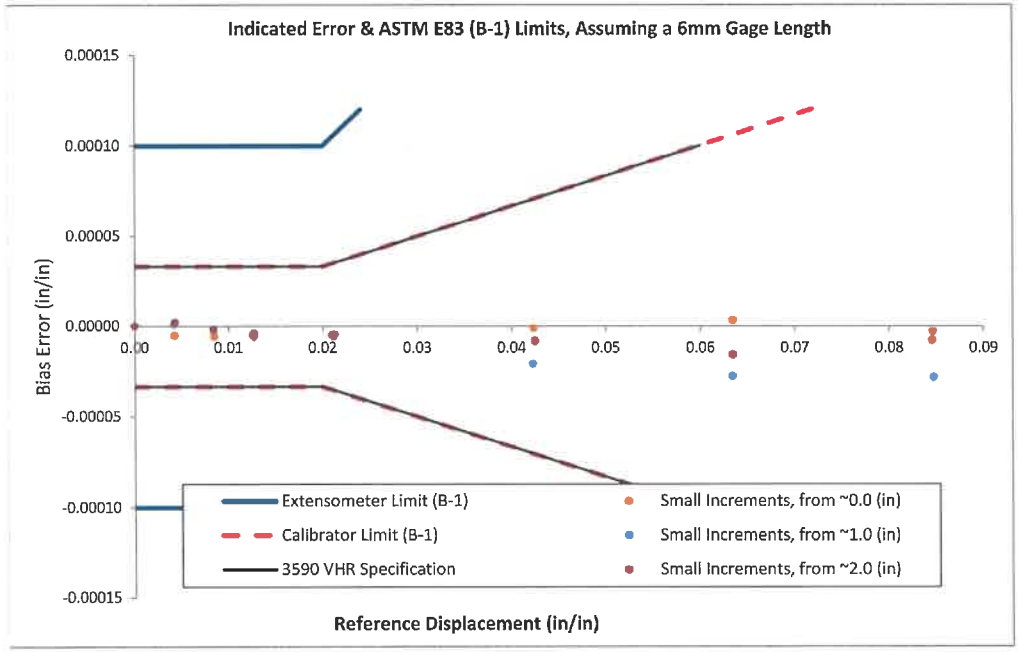
Remarks:

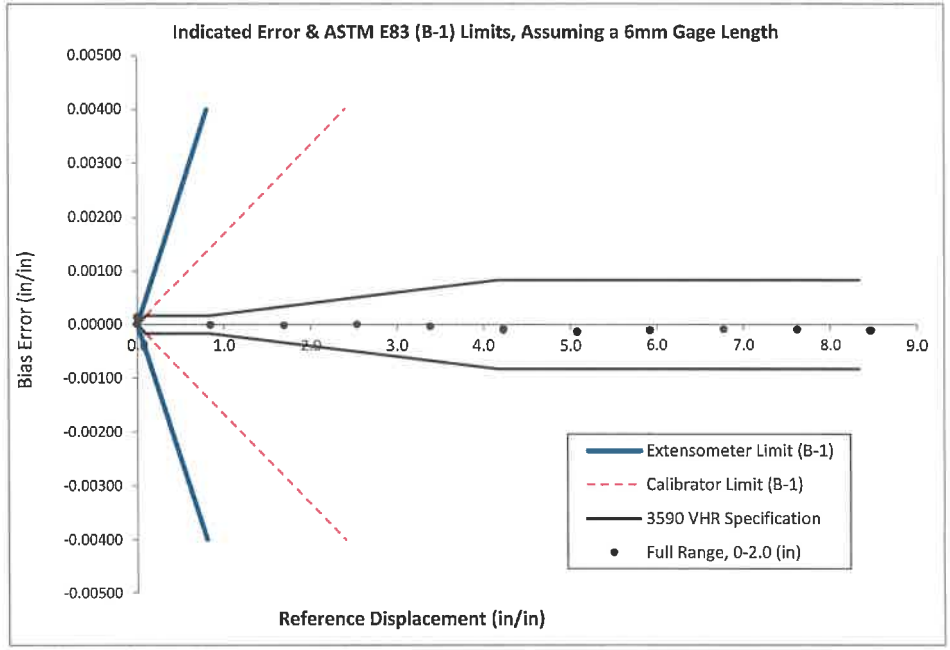
Calibrated by: Rachel Meeper **Date:** 27 Feb 26 **Issued by:** JS **Date:** March 2, 2026

Epsilon Technology Corp.
3975 S. Hwy. 89, Jackson, WY 83001, USA
PHONE: (307) 733-8360
FAX: (307) 733-8375


Indicated Error & ISO 9513 0,5 Limits
Bias Error (in)
Reference Displacement (in)
Extensometer Limit (0,5)
Calibrator Limit (0,5)
3590 VHR Specification
Small Increments, from ~0.0 (in)
Small Increments, from ~1.0 (in)
Small Increments, from ~2.0 (in)


Indicated Error & ISO 9513 0,5 Limits
Bias Error (in)
Reference Displacement (in)
Extensometer Limit (0,5)
Calibrator Limit (0,5)
3590 VHR Specification
Full Range, 0-2.0 (in)


Indicated Error & ASTM E83 (B-1) Limits, Assuming a 6mm Gage Length
Bias Error (in/in)
Reference Displacement (in/in)
Extensometer Limit (B-1)
Calibrator Limit (B-1)
3590 VHR Specification
Small Increments, from ~0.0 (in)
Small Increments, from ~1.0 (in)
Small Increments, from ~2.0 (in)


Indicated Error & ASTM E83 (B-1) Limits, Assuming a 6mm Gage Length
Bias Error (in/in)
Reference Displacement (in/in)
Extensometer Limit (B-1)
Calibrator Limit (B-1)
3590 VHR Specification
Full Range, 0-2.0 (in)