

SVE 2 | Non-Contacting Video Extensometer

While contacting extensometers offer accurate strain measurement, they can have an adverse effect on results due to influence or slippage on the specimen by knife edges, damage to the specimen at break, or wear of moving parts. As a result, Instron® introduced the first commercial video extensometer in 1991. The newest Standard Video Extensometer (SVE 2) is a high-performance, non-contacting extensometer that is ideally suited for everyday applications such as rubber, soft plastics, elastomers and other materials with high strain to failure. Additionally, the SVE 2 is available with various Fields of View (FOV) that suit applications in both ambient and non-ambient temperature conditions.

One Device, Any Machine

Don't have an Instron in your lab? The SVE 2 will still work for you. Regardless of the machine currently in your lab, the SVE 2 can be integrated with any non-Instron or past-generation Instron system that uses a $\pm 10\text{v}$ analog input.*

Affordable Non-Contacting Solution

Do you need an affordable, non-contacting strain measurement solution for your high-elongation materials? The SVE 2 is ideal for elastomers and polymers that have less demanding requirements for measuring strain, including ASTM D412 and ISO 37.

Designed by Customers, Engineered by Instron

How often do you get to design your own testing instrument? Learning what is critical for our customers allows us to develop technology that is intuitive and eliminates unnecessary steps and complicated set up procedures. Every interaction that our global sales and service teams have with customers allows us to gain valuable insight into customer problems, providing the input for us to engineer customized solutions that address these important customer concerns.



* Performance depends on system, analog output has 18 bit resolution

Specifications

Axial Measurement

Lens Focal Length	mm	35	16	9	6
Field of View for Tabletop Static and Dynamic Systems ¹	mm	100	240	425	620
	in	3.94	9.45	16.73	24.41
Field of View for Floor Model Static Systems ²	mm	130	310	560	840
	in	5.11	12.2	22.04	34.46
Resolution	µm	1	1	3	6
Accuracy	µm	±3 or 0.5% of Reading*	±5 or 0.5% of Reading*	±10 or 1% of Reading*	±15 or 1% of Reading*
Data Rate	Hz	100	100	100	100
Minimum Gauge Length	mm	5	6	12	15
	in	0.2	0.23	0.47	0.59
Maximum Following Speed	mm/min	2500	2500	2500	2500
	in/min	98.4	98.4	98.4	98.4
Resolution with Chamber (Axial at 23 °C)	µm	3	5	9	13.5
Accuracy with Chamber (Axial at 23 °C)	µm	±3 or 1% of Reading*	±5 or 1% of Reading*	±10 or 1% of Reading*	±27 or 1% of Reading*

Classification to Standards

Classification to ISO 9513:2012	mm	Class 1	Class 1 (Travel > 0.5)	Class 1 (Travel > 1)	Class 1 (Travel > 1.5)
Classification to ASTM E83-10	mm	Class B-1 (G.L. > 30)	Class B-2 (G.L. > 25)	Class C (G.L. > 10)	Class C (G.L. > 15)

*Whichever is greater

Notes:

- 334X, 336X, 594X, standard width 596X, ElectroPuls®, and 8800 Systems
- Standard width 3382, 5982, 5984, 5985

Non-Contacting Video Strain Measurement for Rubber and Elastomers

- Ideal for testing rubber, soft plastics, films, and high-elongation materials
- Meets testing standards ASTM D412, ISO 37, and ASTM D638
- Accommodates specimens of multiple gauge lengths or varied elongations of specimens

One Device, Any Machine

- Its versatility allows for testing specimens and components at ambient, high/low temperatures, or submersed in a bath
- For use on all Instron® systems (past and present), as well as non-Instron systems that accept an ±10V analog input
- Mounts easily to testing frame and can quickly be moved from machine to machine within the lab

Designed by Customers, Engineered by Instron

- Take measurements using the marks that best fit your application – dots or lines
- Plug and play installation dramatically reduces dependency upon PC requirements
- Operator controls when and where you need them – integrated directly into Bluehill® 3 Software
- Patented* technology reduces errors from lighting fluctuations that are common in most labs
- On-board measurement technology means that data is processed real-time

Hardware and Software Requirements

The SVE 2 runs on the same PC as the testing machine software. The minimum specification for the PC is: 3.06 GHz Pentium 4 with 512 MB memory and Microsoft® Windows® 7 Professional (32 and 64 bit).

*Instron holds US and European patent for the low-voltage LED illumination system that ensures optimum lighting under all lighting conditions. US 7,047,819 B2, US 7,610,815 B2, and EP 1,424,547, B1.

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