INSTRON®

The difference is measurable®

SVE3

Standard Video Extensometer

The Standard Video Extensometer (SVE3) is a high-performance, non-contacting strain measurement device suited for everyday testing. Capable of meeting Class 1 (ISO 9513) or Class B-2 (ASTM E83) requirements, the SVE3 can be used for a variety of applications, including elastomers, plastics, films, and metals.

THE VIDEO ADVANTAGE

Available with multiple fields of view lenses, the SVE3 is adaptable for testing small to large gauge lengths, low to high elongations, flat and round specimens, and applications in both ambient and non-ambient temperature conditions — eliminating the need to purchase and maintain multiple clip-on devices.

While contacting extensometers offer accurate strain measurement, they can have an adverse effect on results due to operator influence, slippage on the specimen by knife edges, damage to the specimen at break, or wear of moving parts. The SVE3 eliminates adverse effects on test results — delivering more consistent strain results across all your labs.

AFFORDABLE NON-CONTACTING SOLUTION

The SVE3 is the ideal solution for labs that test elastomers, polymers, films, and metals that have less demanding testing requirements. It's built on the same foundation as our most advanced extensometer, the AVE3, but with a feature set that is better aligned with basic strain measurement requirements.

APPLICATION RANGE

- Materials: elastomers, soft polymers, films, and metals
- Types of loading: tensile, compression, bend
- Meets testing standards such as ASTM D412, ISO 37, ASTM D638, ISO 6892 (Method A2 or B), ASTM E8 (Method A or C)

STANDARD FEATURES

- Can be used on nearly ANY Instron system in your lab
- Allows for testing specimens and components at ambient, high, and low temperatures
- Mounts easily to the test frame and can quickly be moved from machine to chamber
- Fully integrated into Bluehill® Universal software
- Patented cross-polarized light technology reduces errors from lighting fluctuations that are common in most labs
- On-board measurement technology processes data in real-time

KINEMATIC MOUNTING

The SVE3 adapts to your testing needs – allowing you to quickly change out the lens to accommodate a wide variety of gauge lengths and elongations. And with the new kinematic mounting, lenses automatically snap into the factory-calibrated location – ensuring consistent setup to capture accurate data every time.

LENS OPTIONS

35 mm - Short Field of View

Suitable for low-strain materials such as metals, and rigid or filled plastics.

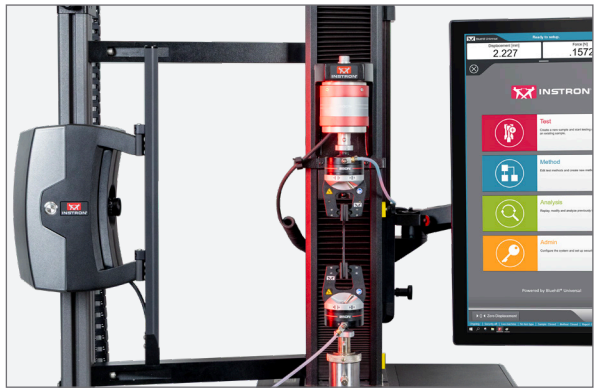
16 mm - Standard Field of View

Suitable for materials such as plastics, metals, sheet metals, and foils.

6 mm (Extra-Long Field of View) and 9 mm (Long Field of View)

Suitable for materials with high elongations such as rubbers, elastomers, films, and some plastics.

** When selecting your lens, ensure you know your minimum and maximum gauge length requirements as well as the total elongation of the range of specimens you plan to test.



Elastomer Testing with SVE3 on a 68SC

Kinematic Mounting

Easy to Access Lenses

Plastics Testing with an SVE3 on a 34TM

SPECIFICATIONS

AXIAL MEASUREMENT

Lens Focal Length	mm	35	16	9	6
Field of View for Table Model Static Systems[1]	mm	85	202	367	522
	in	3.45	7.95	14.45	20.55
Field of View for Floor Model Static Systems[2]	mm	112	261	477	685
	in	4.41	10.28	18.78	29.87
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	200	200	200	200
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 9513:2016[3]	mm	Class 1	Class 1 (G.L. > 12.5)	Class 1 (G.L. > 12.5)	Class 1 (G.L. > 15)
Classification to ASTM E83-16[3]	mm	Class B-1 (G.L. > 30)	Class B-2 (G.L. > 12.5)	Class C (G.L. > 10)	Class C (G.L. > 15)

*Whichever is greater
Notes:
1. 334X, 34SC, 336X, 34TM, 594X, 68SC, standard width 596X and 68TM
2. Standard width 3382, 5982, 5984, 5985, 34FM, and 68FM
3. Ambient table and floor model systems

HARDWARE AND SOFTWARE REQUIREMENTS

The SVE3 runs on the same PC as the testing machine software. The minimum specification for the PC is: Intel i3 @ 3.0GHz, minimum 16 GB RAM, Windows® 10 (64 bit) Build 1607 or greater, excluding Home Edition. Windows® 11 (64 bit), excluding Home Edition.

• Instron holds U.S. and European patents for the low-voltage LED illumination system that ensures optimum lighting under all conditions. US 7,047,819 B2, US 7,610,815 B2, and EP 1,424.

INSTRON®

Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters
Coronation Road, High Wycombe, Bucks HP12 3SY, UK
Tel: +44 1494 464646