

5960 Series systems perform tensile, compression, bend, peel, tear, puncture, creep, and cyclic tests on all raw materials and finished goods. These testing instruments are engineered for precision, built for durability, and offer flexibility for changing requirements. They are designed with features that increase testing efficiency and improve the testing experience for the operator.

The performance and versatility of the 5960 Series systems makes them the industry standard throughout the biomedical, automotive, and electronics industries to test materials and products made from plastics, metals, elastomers, adhesives, biomedical devices, composites, textiles, and more. The wide variety of global testing applications has led us to offer multiple height and width systems in a range of maximum force capacities such as 5, 10, 30, and 50 kN.

Features

- Meets or exceeds requirements of all national and international standards; namely ISO, ASTM, BS, DIN, EN, and AFNOR
- Thousands of accessories to meet test requirements in almost any application or industry: biomedical, automotive, electronics, plastics, metals, composites, elastomers, aerospace, textiles, and many more
- Supported by the largest global Service organization in the industry; delivering high-quality calibrations, training, preventative maintenance, and technical support
- Productivity Panel with Live Display, Soft keys and Specimen Protect for enhanced usability and productivity



Bluehill® Universal and Instron® Connect

Designed from the ground up for touch, Instron's static testing software, Bluehill Universal, is easy-to-use, increases testing efficiency, and contains modular features that enable users to run the most complex of tests.

With ISO 9001 accreditation, our goal is to provide the best ownership experience by delivering the highest quality products, expert support, and world-class service. Instron Connect provides users with a powerful communication platform via a secure connection between the Instron system at your facility and Instron's global technical support engineers. With Instron Connect, users receive faster remote technical support, reduce risk with schedule verification and preventive maintenance reminders, and are effortlessly able to keep up to date with the latest software features.

Specifications

		5965	5966	5967	5969
Force Capacity ¹	kN	5	10	30	50
	lbf	1125	2250	6750	11250
Vertical Test Space ^{3,8}	mm	1256 (E1) 1756 (E2)	1256 (E1) 1756 (E2)	1212 (E1) 1712 (E2)	1212 (E1) 1712 (E2)
	in	49.4 (E1) 69.1 (E2)	49.4 (E1) 69.1 (E2)	47.7 (E1) 67.4 (E2)	47.7 (E1) 67.4 (E2)
Horizontal Test Space ⁴	mm	418	418	418 (F1) 946 (F2)	418
	in	16.4	16.4	16.4 (F1) 37.1 (F2)	16.4
Testing Speed Range Min-Max (Return)	mm/min	0.001-3000 (3200)	0.001-1500 (1700)	0.001-1000 (1000)	0.001-600 (600)
	in/min	0.00004-120 (128)	0.00004-60 (67)	0.00004-40 (40)	0.00004-24 (24)
Position Control Resolution	nm	167	86	45	27
	µin	6.6	3.4	1.8	1.1
Frame Axial Stiffness	kN/mm	30	60	115 (F1) 75 (F2)	180
	lb/in	342600	342600	657000 (F1) 428300 (F2)	1027800
Maximum Force at Full Speed	kN	5	10	30	50
	lbf	1125	2250	6750	11250
Maximum Speed at Full Force	mm/min	3000	1500	1000	600
	in/min	120	60	40	24
Height	cm	163 (E1) 216 (E2)	163 (E1) 216 (E2)	163 (E1) 216 (E2)	163 (E1) 216 (E2)
	in	64 (E1) 85 (E2)	64 (E1) 85 (E2)	64 (E1) 85 (E2)	64 (E1) 85 (E2)
Width ⁵	cm	78	78	78 (F1) 128 (F2)	78
	in	31	31	31 (F1) 51 (F2)	31
Depth	cm	73	73	73	73
	in	29	29	29	29
Weight	kg	146 (E1) 161 (E2)	146 (E1) 161 (E2)	192 (E1+F1), 210 (E2+F1), 435 (E1+F2), 453 (E2+F2)	250 (E1) 273 (E2)
	lbs	322 (E1) 355 (E2)	322 (E1) 355 (E2)	423 (E1+F1), 463 (E2+F1), 959 (E1+F2), 999 (E2+F2)	551 (E1) 602 (E2)
Maximum Power Requirement	VA	900	900	900	900

Notes:

1. Meets or exceeds ASTM E4, BS 1610, DIN 51221, ISO 7500/1, EN 10002-2, JIS B7721, JIS B7733, and AFNOR A03-501 standards. Instron recommends that systems are verified on-site at the time of installation as required by ASTM E4 (par. 20.3) and ISO 7500-1 section 9) standards.
2. All systems conform to all relevant European standards and carry a CE mark.
3. Vertical test space on all systems is the distance from the top surface of the base platen to the bottom surface of the moving crosshead, excluding load cell grips and fixtures.
4. Horizontal test space on dual column systems is the distance between the inside edge of the columns.
5. This is the system footprint width. The Operator Dashboard monitor may add 300mm (12in) to the overall width of the frame.
6. These specifications were developed in accordance with Instron's standard procedures and are subject to change without notice.
7. Extra-high or wide load frames and extra-high or low speed drive systems are also available. Contact your nearest Instron office for details.
8. F2 width option on 5967 uses a thicker crosshead and base beam reducing vertical test space by 10mm

Common Specifications

Force Measurement Accuracy:

± 0.4% of reading down to 1/100 of load cell capacity with 2525, 2530 or 2580 Series load cells; ± 0.5% of reading down to 1/1000 of load cell capacity with 2580 Series load cells (with Advanced Performance Option); ± 0.5% of reading down to 1/500 of load cell capacity with 2580 Series load cells; ± 0.5% of reading to 1/250 of load cell capacity with 2525 or 2530 Series load cells. ¹

Displacement Measurement Accuracy:

±0.01 mm or 0.05% of displacement (whichever is greater)

Strain Measurement Accuracy:

Meets or surpasses the following standards: ASTM E83, ISO 9513, and EN 10002-4.

Testing Speed Accuracy:

(Zero or constant load): ±0.1% of set speed

Data Acquisition Rate at the PC:

Up to 2.5 kHz (Advanced option) simultaneous on force, displacement, and strain channels, 1 kHz (Standard)

Facility Requirements and Operating Environment

Single Phase Voltage:

100, 120, 220, or 240 VAC ±10%, 47 to 63 Hz. Power supply must be free of spikes, surges or sags exceeding 10% of the average voltage.

Operating Temperature:

+10 to +38 °C (+50 to +100 °F)

Storage Temperature:

-40 to +66 °C (-40 to +150 °F)

Humidity Range:

+10 to +90%, non-condensing

Atmosphere:

Designed for use under normal laboratory conditions. Protective measures may be required if excessive dust, corrosive fumes, electromagnetic field, or hazardous conditions are encountered.

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