

FMS Series

Force Measurement Testers - Single Column

The FMS Series are single column, table-top testing systems that operate with our L2 Force Measure software; S2 Spring Test software; and L2 Plus Force Analysis software. L2 and S2 systems operate using a tablet computer and are ideal for high-volume, repetitive testing applications. L2 Plus systems operate using an all-in-one computer. The FMS test frames are available in four load capacities: 500N, 1kN, 2.5kN and 5kN. They can be used for tensile, compressive, cyclic, flexural, shear, creep and other common force measurement methods. FMS testers feature a granite base with all-metal columns and pre-loaded ball screws making them inherently stiff. Deflection compensation is included in our software so that extension control and measurements are precise, accurate and repeatable. Magnetic travel limits are adjustable to prevent over travel situations. Communication between the test frame and user interfaces is USB. Frames feature optional digital I/O. Data sampling is selectable between 5-1000Hz. FMS test frames may use MLC or FLC load cell sensors. Sensors are IEEE 1451.4 compliant. Frames may be fitted with optional splinter shield.

Features & Specifications

- Ideal for tension, compression, flexural, cyclic and shear testing applications
- Use with Starrett L2 Force Measure software or S2 Spring Measurement software on our Windows®-based tablet PC
- Use with Starrett L2 Plus Force Analysis software on our Windows®-based all-in-one computer
- Superior frame stiffness and position control
- MLC and FLC load cell sensors are IEEE 1451.4 compliant and supplied with a factory Certificate of Calibration
- Data sampling from 5 to 1000 Hz
- USB Communications
- Wide selection of test fixtures and accessories



FMS-1000 Series with L2 Series software and tablet PC for force measurement applications



Specifications

FMS Series Force Measurement Frames

Model Number		FMS-500	FMS-1000	FMS-2500	FMS-5000
Load Capacity	N	500	1000	2500	5000
	kgf	50	100	250	500
	lbf	112	225	562	1124
Minimum Speed	mm/min	0.05	0.05	0.05	0.05
	in/min	0.002	0.002	0.002	0.002
Maximum Speed	mm/min	1525	1525	1525	1525
	in/min	60	60	60	60
Position Control Resolution	µm	0.250	0.250	0.250	0.250
	µin	9.8	9.8	9.8	9.8
Vertical Test Space ¹	mm	559	953	1257	1257
	in	22	37.5	49.5	49.5
Total Crosshead Travel	mm	381	762	1016	1016
	in	15	30	40	40
Throat	mm	100	100	100	100
	in	4	4	4	4
Accuracy Load Measurement		Load Cell Sensor Dependent			
Accuracy Position Measurement ²		±0.001 inch (±20 µm)			
Accuracy Crosshead Speed		+/-0.1% of set speed			
Data Sampling	Hz	5 to 1000			
Digital I/O		8 channels @ 1-5V			
Electrical Phase		1	1	1	1
Power Requirements		100, 120, 220, 230, 240VAC 10%; 47-63Hz Self-identifying			
Operating Temperature	°C	+10° to +38°C			
	°F	+50° to 100°F			
Storage Temperature	°C	-40° to +66°C			
	°F	-40° to 150°F			
Humidity		+10% to +90%, non-condensing			
Total Height	mm	813	1270	1575	1575
	in	32	50	62	62
Total Width	mm	381	381	381	381
	in	15	15	15	15
Total Depth	mm	514	514	514	514
	in	20.25	20.25	20.25	20.25
Weight	kg	61	77	88	88
	lb	135	170	195	195

Notes:

Load Measurement Accuracy

+/-0.1% of full scale supplied with factory Certificate of Calibration. May be calibrated on-site to +/-0.5% of reading down to 1/100 of load cell capacity per ASTM E4, ISO 7500/1 and EN 10002-2.

Compliance

Starrett test systems conform to all relevant European standards and carry the CE mark.

Specifications are subject to change without notice.

Notes

- Total vertical space is the distance from the top surface of the base plate to the bottom surface of the crosshead, excluding load cell sensor, test fixtures, and clevis adapter.
- Assumes Linear Error Correction and Deflection Compensation has been performed on test frame.