

LM110/310 Series Microindentation Hardness Testers

Specification Sheet



Model	LM110	LM110AT	LM310AT	
	863-790-202 (K) 863-790-204 (V)	863-790-201 (K) 863-790-203 (V)	863-790-229 (K) 863-790-230 (V)	
Turret Mechanism	Manual	Automatic	Automatic	
Loading Mechanism		Automatic loading and unloading		
Load Application Speed		50 μm /second		
Dwell Time	5 to 40 seconds		5 to 99 seconds	
Objectives	Three positions: 10X and 50X are included; one additional objective lens is optional			
Total Magnification	For measurement: 500X (Objective 50X; Eyepiece 10X) For observation: 100X (Objective 10X; Eyepiece 10X)			
Measuring Microscope	Analog 200 μm (At 500X) 0.5 μm (user estimate to 0.1 μm)	Digital 200 μm (At 500X) 0.1 μm	<u>Operation and Test Conditions</u> Dwell Time, Brightness of Light Source, Loading Start, and Rotation of Turret <u>Data Display</u> Diagonal Length (D1/D2), Hardness Value (HV/HK), OK/NG Criteria	
Display and Touch Control Panel				
Data Output			USB and RS232C	
Max. Height of Specimen	(3.6 in) 91 mm			
Max. Depth of Specimen	(4.3 in) 110 mm			
Available Tests	Micro-Vickers, Knoop			
Manual X-Y Stage	Dimensions: 3.9 in x 3.9 in (100 mm x 100 mm) • Max. Movement: 1.0 in x 1.0 in (25 x 25 mm) Minimum micrometer handle graduation: 0.001 in			
OK/NG Criteria	— Upper and lower limits setting and HI/OK/LO display			
Light Source	LED LED: Automatic brightness reduction during loading sequence			
Conforms To	JIS B-7734, ASTM E-384, ISO 4545, and ISO 6507			
Video Port	Standard			
Dimensions	19.7 in H x 17.1 in D x 7.3 in W (499 mm x 435 mm x 186 mm)			
Weight	Approximately 79.4 lb (36 kg)—including standard accessories			
Power Supply	100 V~ to 220 V~ switchable 50/60 Hz			

Test Loads	mN	98.07	245.2	490.3	980.7	1961	2942	4903	9807
	gf	10	25	50	100	200	300	500	1000

LM310 Series

- Video port is standard
- Automatic light dimming during test
- OK/NG indication
- Bright, easy-to-read display
- LED illumination
- Auto turret standard
- 110/220 volt switchable



LM110 Series

- Straightforward analog operation
- Video port is standard
- Accuracy and precision without the automation
- LED illumination
- Auto or manual turret
- 110/220 volt switchable



Specifications and part numbers may change.
Consult LECO for latest information.

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