

LM110/310 Series Microindentation Hardness Testers

Specification Sheet



Model	LM110 863-790-202 (K) 863-790-204 (V)	LM110AT 863-790-201 (K) 863-790-203 (V)	LM310AT 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	<u>Analog</u>		<u>Digital</u>
Max. Measuring Length	200 μm (At 500X)		200 μm (At 500X)
Min. Resolution	0.5 μm (user estimate to 0.1 μm)		0.1 μm
Display and Touch Control Panel	Loading start, status LEDs		<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
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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