



Digital Micrometer

Model 49-86, Art. nr. LD3581

An affordable precision micrometer with advanced capabilities, now with on-board statistics to display up to 100 readings.



The **NEW** model 49-86 Digital Micrometer combines a precision digital linear encoder measuring system with an ultra-clear, easy-to-read digital display. The unit has a measurement range of: 0-0.050 in. (0-1.27 mm) for very thin materials such as thin plastic films, paper, non-woven textiles, board and battery separators. The motor-driven instrument utilizes the dead weight micrometer principle for accuracy and repeatability. Each unit is designed and manufactured for when the utmost precision is required.

The construction of the model 49-86 consists of a heavy, solid frame which supports the unit and houses the reflective linear encoder and associated circuitry. A digital readout is provided to automatically display the specimen thickness. The lower anvil and movable pressure foot are made from lapped, stainless steel.

The unit has the capability of measuring and storing multiple readings, providing a cross machine profile. Up to 100 readings are stored and analyzed including high, low, average and standard deviation for each series of tests. Data can be permanently saved with optional GraphMaster PC-based software or printed.

FEATURES

- Digital readout and superior mechanical design
- For use throughout the laboratory and production floor
- Utilizes dead weight micrometer principle
- Units conversion for microns, mils, inches and millimeters
- Auto Zero
- Saves up to 100 readings during a continuous measurement
- On-board statistics include high, low, average and standard deviation
- Serial output for simple data collection
- **GraphMaster™** compatible
- User-configurable options: lowering speed, dwell time, time of day, zero threshold, live readings, starting units, LED pulse, set manager password
- Special anvil diameters and dead weight loads available

SPECIFICATIONS

- Range: 0-0.050 in. (0-1.27 mm)
- Resolution: 0.5 micron (0.02 mil)
- Accuracy: 1.0 micron (0.039 mil)

APPLICATIONS

The model 49-86 is designed to measure the thickness or caliper of a variety of sheet-like materials. Almost any material including paper, natural or synthetic fabrics, leathers, metals, plastics and rubber can be measured with precision and ease.

STANDARDS

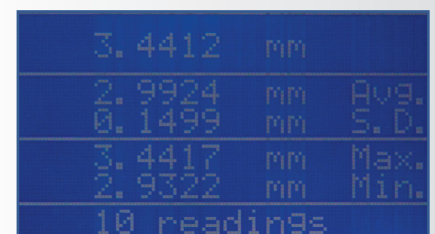
TAPPI T 411, ISO 534, DIN 53105, ISO 3034, APPITA 1301.426, PAPTAC D.4, ISO 037, ISO 4593, ASTM D6988, ASTM F2251



Displays Up To 100 Readings



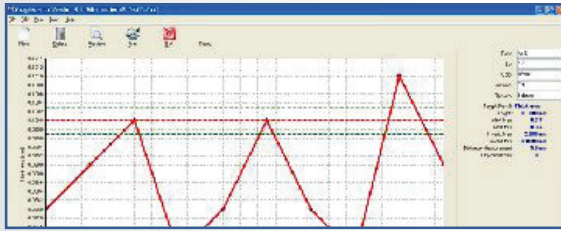
Displays Summary Statistics



0.5 micron resolution (0.02 mil) **1.0** micron accuracy (0.039 mil)

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GRAPHMASTER™ OPTION

GraphMaster™ PC-based software provides data collection, plotting and analysis with export capabilities for our 49-85/86/87 series of Digital Micrometers. GraphMaster™ can profile a series of measurements creating a real time plot of thickness versus interval, or distance.

Specifications	
Model/art.nr.	49-86 / LD3581
Range	0-0.050 in. (0-1.27 mm)
Resolution	0.5 micron (0.02 mil)
Accuracy	1.0 micron (0.039 mil)
Units	Microns, mils, millimeters or inches
Dwell time	100 ms - 6 sec
Lowering speed	1 mm/sec, 2 mm/sec, max. (~2.5 mm/sec)
Speed tolerance	+/-0.3 mm/sec
Power	90-250 VAC, 50/60 Hz

Part #	Foot Diameter	Foot Pressure	Standards	Industry
49-86-00-0001	16mm/0.63 inch	50kPa/7.3PSI	TAPPI T 411	Paper and Board
49-86-00-0002	6.35mm/0.25 inch	172 kPa/25PSI	ASTM D374	Electrical Insulation
49-86-00-0003	50.8mm/ 2.0 inch	95g/sq.inch	Paper Tissue & Towel	Paper Tissue & Towel
49-86-00-0004	16mm/0.63 inch	100kPa/14.6PSI	ISO 534, ISO 3034, DIN 53105	Paper & Board
49-86-00-0005	35.7mm/1.41 inch	10kPa/1.45PSI	Special	Textiles
49-86-00-0006	6.35mm/0.25 inch	31.02kPa/4.5PSI	ASTM D6988, ISO 4593, ASTM F2251	Plastic Film
49-86-00-0007	12.7mm/ 0.50 inch	16.26kPa/2.36PSI	ASTM D6988, ASTM F2251	Plastic Film
49-86-00-0018	12.7mm/ 0.50 inch	50kPa/7.3PSI	ASTM D6988, ASTM F2251	Plastic Film

NOTE: Other sizes are available.

Instrument Size	
Height	12 in. (30.5 cm)
Width	7 in. (15 cm)
Depth	9.5 in. (24 cm)
Weight (approx.)	22 ib. (10 kg)



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