

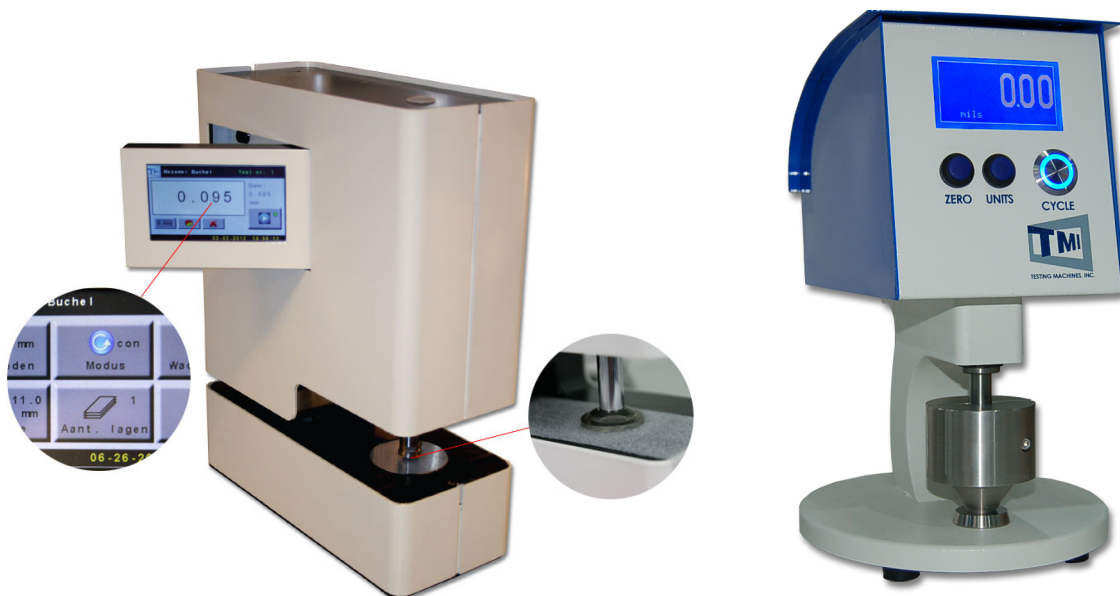


Digital Linear Encoders Provide Unmatched Accuracy, Resolution and Precision

Available In TMI/Buchel's New Micrometers

When the TMI Group of Companies designed its latest series of Micrometers, we searched for the best digital measurement technology (Digital Linear Encoders) to offer unmatched accuracy, resolution and precision.

TMI's new micrometers, including the models 49-56 and 49-85/86/87 thickness testers, utilize these digital linear encoders.



Traditional precision micrometers, including the classical micrometers manufactured by TMI, use legacy analog transformer technology based on LVDT sensors. Analog LVDT sensors have measurement



limitations, including a required warm-up period, and stable temperature requirements; plus, they are generally most accurate only at the center of the measurement range.

Digital Linear Encoders are manufactured using a glass etched rod similar to a scale. The etched rod is read optically and is transmitted as a digital signal which is then converted directly to a thickness value. There are no analog voltages, amplifiers, sweet spots, warm-up periods or temperature factors which can contribute to calibration and measurement error.

Why is all of this important when testing plastic film, paper, nonwoven or other sheet materials?

Micrometers used in measuring thin sheet materials typically have a measurement range of 0.00 to 1 mm or approximately 40 mil. If the material is a plastic film and the thickness is 0.02 mm or 1.00 mil, the measurement is occurring at 2% of the instrument's or sensor's measurement range. Using a digital linear encoder, measurements at 2% of the scale will have the same precision as a measurement at 98 % of scale, thus providing precision throughout the entire range.

In general, digital signals are less prone to loss of quality as compared to analog signals. Digital technology has revolutionized the testing instrument industry and our new TMI and Buchel micrometers have continued to set the standard in technology, accuracy and precision.

Testing Machines, Inc.
40 McCullough Drive
New Castle, DE 19720 USA
Phone: (302) 613-5600 or Toll-free: (800) 678-3221
Fax: (302) 613-5619
Email: info@testingmachines.com
Website: www.testingmachines.com