

# The TLAser203™ Micrometer measures up

TLAser203 Micrometer makes 2400 measurements per second for more precise quality control

For high-speed, high-precision measurements, the new TLAser203 Micrometer employs an advanced prism based scanning design that provides exceptional accuracy and repeatability with a scanning rate of 2400 samples per second.

- Positional error is  $\pm 0.25\mu\text{m}$  over the 2mm x 2mm center of the product path.
- Repeatability is  $\pm 0.05\mu\text{m}$  (1/100th second).
- 100% of the measurements are processed through the TLAser400™ PC Interface Card (ISA or PCI) to any PC-based computer using Windows 98/Me/NT 4/2000.
- Transparent products are measured with the same precision as opaque products—there's no added cost.

Because the prism-based scanning system allows for a shorter optical path and fewer components, there's less opportunity for errors to enter the system. The prism's highly efficient optical path minimizes positional and linearity errors and is not affected by motor wobble.

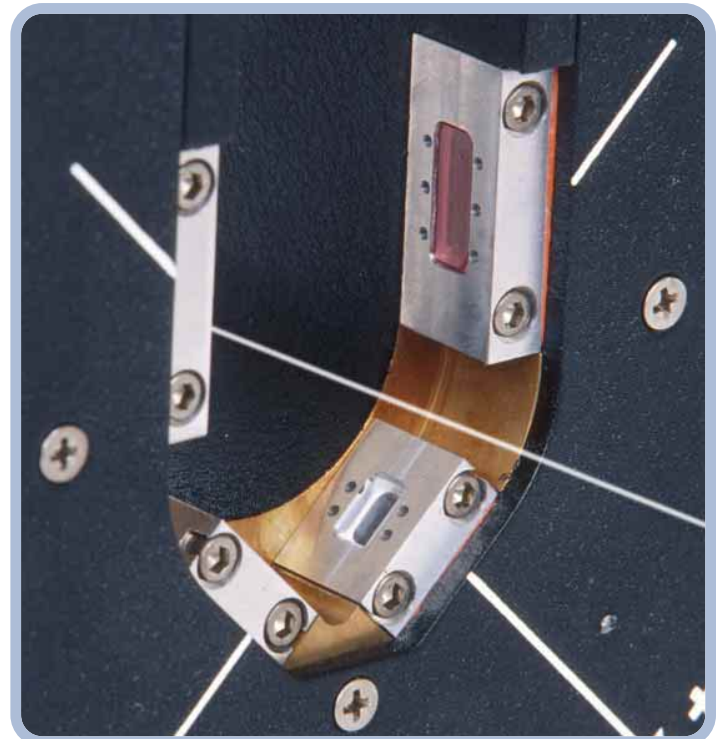
Calibration fixtures are available in standard and adjustable designs. With the adjustable design, calibration standards may be positioned precisely within the measurement area to achieve optimum accuracy.

The compact and rugged construction of the TLAser203 Micrometer offers many important benefits, including:

- The nitrogen-purge system and O-ring seals keep the micrometer, measurement windows and product path free of contaminants, even in harsh environments.
- Waveform diagnostic ports enable quick identification of any problem conditions.
- A number of mounting holes make it easy to place the micrometer exactly where it's needed.
- The scanning prism simplifies the optical design for added durability and years of trouble-free service.
- LaserLinc's swap-and-repair service policy assures a temporary replacement will be shipped overnight if your TLAser203 gauge should ever need factory repair.



The compact TLAser203 Micrometer is a rugged unit that mounts in any position. Two waveform diagnostic ports on the side aid in troubleshooting.



The nitrogen-purge cover plate can be instantly removed to inspect the scanner's four window areas.

# TLAser203™ Micrometer helps assure total control of your manufacturing process

The TLAser203™ Micrometer—like LaserLinc's other micrometers—is designed specifically to work with the popular TLAser400™ PC Interface Card and software introduced in 1996 to exploit the relatively low-cost, high-powered computing capabilities of the PC.

Since then, LaserLinc engineers have applied their first-hand applications experience and innovative problem solving skills to develop the TLAser203 gauge as a worthy complement to our interface card and software technology.

Today, you'll find LaserLinc delivers the very best gauging and processing tools to continuously measure, control, and document your product quality. We back our products with an applications engineering and support staff committed to your success and satisfaction.



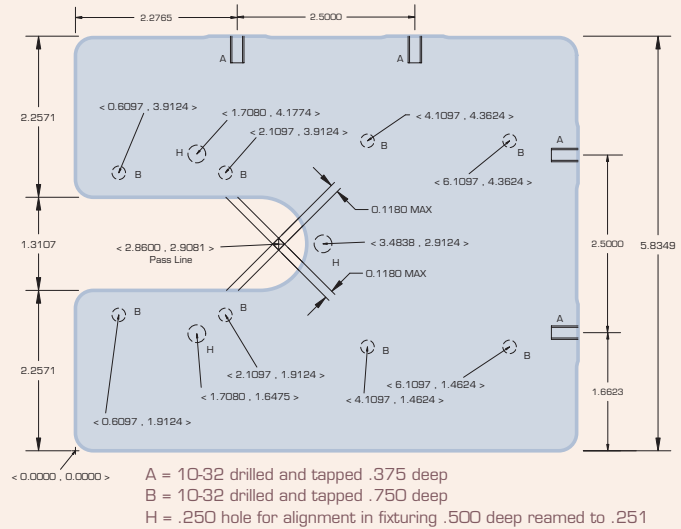
Count on LaserLinc products for peak performance, every micron of the way!

The TLAser400 Micrometer Interface Card and TLAserLink™ Operator Interface Software provide very special benefits:

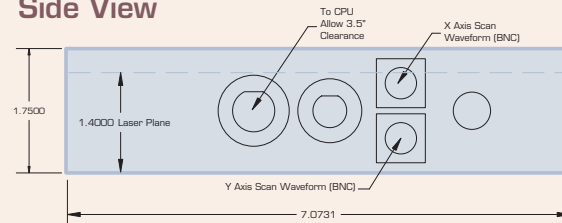
- They provide a PC-based means for achieving unparalleled processing power, data storage and networking flexibility at low cost.
- They make it possible to process data at the full measurement rate of all the micrometers connected to the system—up to 8 micrometers per PC.
- TLAserLink Operator Interface Software offers powerful data processing, quality monitoring and documenting capabilities—including flaw detection, event reporting and defect characterization.

Contact LaserLinc for further information on how we can help you deliver the highest quality product to your customers.

## Face View



## Side View



## TLAser203 Micrometer Specifications

- Resolution is  $.0052\mu\text{m}$  ( $.0000001''$ )
- One-second measurement repeatability is  $\pm 0.0125\mu\text{m}$  ( $\pm 0.0000005''$ ) for  $250\mu\text{m}$  ( $.010''$ ) part
- 1/100th second measurement repeatability is  $\pm 0.05\mu\text{m}$  ( $\pm 0.000002''$ ) for  $250\mu\text{m}$  ( $.010''$ ) part
- Measurement deviation within the central  $2\text{mm} \times 2\text{mm}$  ( $.08'' \times .08''$ ) is  $\pm 0.25$  microns ( $\pm 0.00001''$ )
- Measurement Field (usable) is  $2.2\text{mm} \times 2.2\text{mm}$  ( $.085'' \times .085''$ )
- Measurement Range is  $40\mu\text{m}$  to  $2\text{mm}$  ( $.00158''$  to  $.08''$ )
- Scan Rate is 2400 scans/second (1200 scans/second/axis)
- Size is  $18\text{cm} \times 14.8\text{cm} \times 4.5\text{cm}$  ( $7.07'' \times 5.84'' \times 1.75''$ )
- Weight is 2 kilograms (4.5 lbs.) (approx.)
- Laser Class II visible red laser diode wavelength is 675 nm