



GTS Glass Thickness System



Laser Triangulation System For Measurement of Glass Thickness

- Noncontact Operation
- High Accuracy - to 0.5 microns
- High Speed - 2,000 Measurements per sec.
- Measures from One Side
- User Adjustable Averaging
- Use Off-line or In-line
- Touch Screen Based Controls & Data Display
- Rugged Industrial Packaging
- Simple Calibration Procedures
- Ideal for Precision Glass

Technical Specification

| Model Number | Measurement Window | Thickness Range | Repeatability | Glass Transparency | Refractive Index | Measurement Data Rate | Output Data Rate | |
|--------------|--------------------|-----------------|---------------|--------------------|------------------|-----------------------|------------------|----------|
| | Note 1 | | Note 2 | | Note 3 | | | |
| GTS 4/28 | mm | 26-30 | 0.3-4.0 | +/-0.5um | >50% | 1.4-1.6 | 2,000/sec. | 212/sec. |
| | in | 1.02-1.18 | 0.01-0.157 | +/-0.00002 | | | | |
| GTS 10/28 | mm | 23-33 | 1.5-10 | +/-2.5um | >50% | 1.4-1.6 | 2,000/sec. | 212/sec. |
| | in | 0.9-1.3 | 0.06-0.39 | +/-0.0001 | | | | |

Notes:

1. Must include both glass surfaces
2. Sensor must be normal to surface for best repeatability
3. Factory calibration at 1.51. User compensation by manual input of index

The GTS is an optical triangulation sensor with touch screen display/controller specifically designed for high accuracy glass thickness measurement. It images two laser spots from both the top and bottom surfaces of the glass to determine thickness, measuring from one side of the glass.

The sensor is factory set for glass with an index of refraction of 1.51, but the user can input the actual index of the product in the range of 1.4 to 1.6.

The GTS takes thickness data at a rate of 2,000 measurements per second. To improve sensor performance, the user can set averaging at up to 200 measurements. Data output rate from the controller is in the range of 1-212 Hz, depending on averaging.

A touch screen based controller provides a simple user interface and data display.

For best repeatability, the sensor should be mounted within +/- 1 degree to the glass surface.

