

Glass Thickness Measurement and Profiling For Faster and More Economic Digital Data Communications

- Data collection and control software functions integrated within the sensor
- High performance on and off line applications
- Safe FDA Class II visible laser emitting light
- Use in fixed position or on scanning mechanisms
- High accuracy: ± 1.0 micron
- High speed: 2,000 measurements per second
- Measures on one side
- User adjustable averaging
- Simple to calibrate
- Rugged industrial package
- Ideal for flat glass measurement

MODEL NUMBER	MEASUREMENT WINDOW (Note 1)	THICKNESS RANGE (Note 2)	REPEATABILITY	GLASS TRANSPARENCY (Note 3)	REFRACTIVE INDEX	MEASUREMENT DATA RATE	OUTPUT DATA RATE
GTS2 4/28	mm 26-30	0.3-3.0	+/-0.5um	>50%	1.4-1.6	2,000/sec.	224/sec @ average 10
	in 1.02-1.18	0.2-0.12	+/-0.00002				440/sec @ average 5

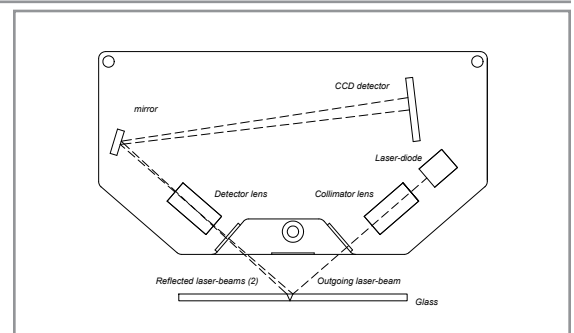
Note 1. Must include both glass surfaces

Note 2. Sensor must be normal to surface for best repeatability

Note 3. Factory index of refraction calibrated at 1.57

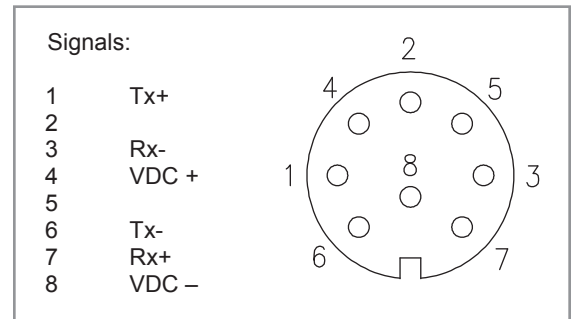
PRINCIPLE OF MEASUREMENT

The GTS2 glass thickness and profiling system uses laser triangulation for thickness measurement and profiling of flat panel glass at ± 1.0 micron accuracy. Using one detector, a single line of incident laser light reflects both the top and bottom surfaces of the glass at a 49 degree angle. An optical image allows a CCD to view these two lines. The CCD is electronically scanned and the difference between the two reflected rays determines the thickness from one side of the glass.



The GTS2 collects data at 2,000 readings per second. To improve sensor performance, the user can set averaging from 5 samples up to 100 samples. Data output of the filtered data is 440Hz to 22Hz respectively. For optimum repeatability, the sensor should be mounted within ± 1.0 degree of the glass surface.

CONNECTOR PIN LAYOUT



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