

LASER DIAMETER GAUGE BY LINT TOP**1. Features**

- 1.1 It adopts laser scanning technique and its measurement range is very large.
- 1.2 It adopts SMD circuit. Small volume, light weight, strong anti-jamming.
- 1.3 High measuring precision and good repeatability.
- 1.4 RS485 communication interface make it may communicate on-line with PLC, PC.
- 1.5 High precision F(θ) mirror. The analyte shake may not affect normal measurements.
- 1.6 No external stray light and smog will affect measurement stability.
- 1.7 Scanning rate: 800 times per second.

**2. Operating Conditions**

Power supply	AC220V±10% 50Hz~60Hz
Operating temperature	5~45℃
Power consumption	≤15W
Relative humidity	≤80% (Without condensed water) No corrosive gas, oil, steam and serious dust in the air.

3. Technical Parameters

Type	Effective measuring range	Measuring accuracy
LTL-10	0.1~10mm	±(0.002+0.02%D)
LTL-25	0.1~20 mm	±(0.002+0.02%D)
LTL-60	0.2~50mm	±(0.003+0.02%D)
LTL-25XY	0.1~25 mm	±(0.002+0.02%D)

4. Product information

4.1 LT-25 Laser Diameter Gauge

4.1.1 Technical Parameters

Model	Effective measuring range	Measuring accuracy	Form
LT-25	0.1~20 mm	± (0.002+0.02%D)	Single shaft

4.1.2 Characteristics of laser diameter gauger-LT-25

4.1.2.1 It adopts laser scanning technique and its measurement range is very large.

4.1.2.2 It adopts SMD circuit. Small volume, light weight, strong anti-jamming.

4.1.2.3 High measuring precision and good repeatability.



4.1.2.4 RS485 communication interface make it may communicate on-line with PLC、PC.

4.1.2.5 High precision F (θ) mirror. The analyte shake may not affect normal measurements.

4.1.2.6 No external stray light and smog will affect measurement stability.

4.1.2.7 Scanning rate: over 800 times per second

4.1.3 Applicable scope of laser diameter gauge

4.1.3.1 Local area network (LAN) cable

4.1.3.2 Coaxial-cable

4.1.3.3 Radio-frequency cable, communication cable

4.1.3.4 Power cable, extruded wire

4.1.3.5 Enameled wire, micro wire drawing and other super slimline, etc

4.1.3.6 All kinds of glass tubes, glass rods and other transparent or translucent objects, etc.

4.1.4 DP-1 Remote display controller of laser diameter gauger

4.1.4.1 Specially for LT series laser diameter gauge to equipped with.

4.1.4.2 The built-in PID adaptive control algorithm

4.1.4.3 With the function of online speed tracking, which can achieve the optimal control for the production line speed.

4.1.4.4 The maximum effective distance can reach 1000 m from diameter gauge.

4.1.4.5 DP-1 output signal: -6V~+6V

4.1.4.6 With the relay out of tolerance alarm output function.



4.2 LT-25XY Laser Diameter Gauge

The LT-25XY laser diameter gauger series of diameter gauges is designed to measure and display the diameter of various extruded materials, such as wires, cables, hoses, glass tubes, strips, and other profiles.



4.2.1 Principle of Operation

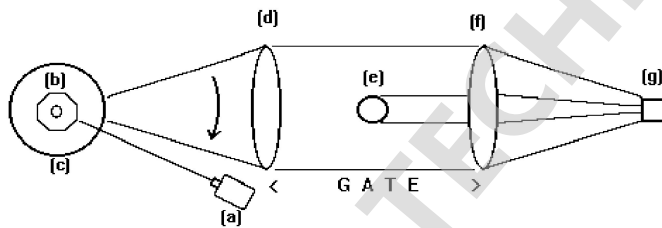
The LT-25XY laser diameter gauger uses the laser scanning method, which effectively samples the product diameter every scan.

To do this the LT-25XY laser diameter gauger incorporates a solid state laser diode visible light source (a). Which is directed on to an 8-sided mirror drum (b).

The mirror drum is mounted on a stepper motor (c) which rotates at 4000 rpm.

The laser scans produced are directed through a corrected lens (d) to produce a parallel beam across the gate area.

The product to be measured (e) cuts this beam and the resultant light pattern is focused by a second lens (f) on to the receiving electronics (g).



This produces an electronic signal which is processed by the internal micro-electronics.

Measurement is made of the absolute size of the product in mm.

This value is then made available via the front panel display, RS485 to outputs.

4.2.2 Performance of LT-25XY laser diameter gauger

Accuracy	2(m±0.02% typically 25°C with product centralised
Form	Double shaft
Measurement Range	0.2~25mm
Gate Size	25mm
Resolution	2(m all gauges
Laser	Solid state laser diode. Class 2 laser 1mW max. (= 675 nm

Rate of Scan	600 Scans per axis per second each Axis
Averaging / scans	64/128/256/512 Number of Scans to average / second
Power Supply	AC220V±10%, 50-60Hz ≤15W
Ambient operation Temperature	5~45℃
Max. Relative Humidity	≤80%

Remark: We can supply tools for flat cable detecting.

4.2.3 Characteristics of LT-25XY laser diameter gauger

4.2.3.1 It adopts laser scanning technique and its measurement range is very large.

4.2.3.2 It adopts SMD circuit. Small volume, light weight, strong anti-jamming.

4.2.3.3 High measuring precision and good repeatability.

4.2.3.4 RS485 communication interface make it may communicate on-line with PLC、PC.

4.2.3.5 High precision F (θ) mirror. The analyte shake may not affect normal measurements.

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4.2.3.7 Scanning rate: over 800 times per second