



LASE 1000T Grey-Line

1D Distance Meter



General Features:

- Contactless distance measuring
- Measuring area up to 100 mm
- Ranges up to 170 mm
- Highest accuracy in the μm -area
- High measuring rate (up to 2 kHz)
- Digital, analogue and ethernet interfaces
- Suitable for operating off on nearly all surfaces
- Rugged construction type - IP65
- Simple installation in several positions
- Closed-loop control of light intensity

Short Description:

The distance sensors of the LASE 1000T-series are optical measuring instruments which work according to the triangulation principle. This technique ensures highest accuracies within μm of range.

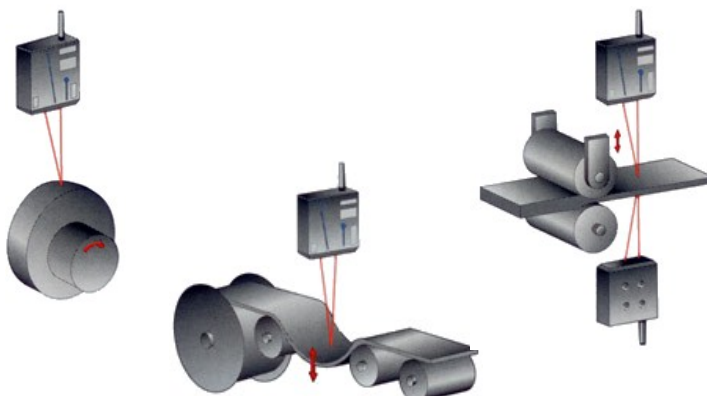
These sensors are typically used for the contactless distance, thickness or width measurement. The sensor produces a visible laser point on an object and the relative position of this laser point is evaluated by a high resolution CCD line camera. From the position of this point along the CCD line, the distance is computed to the object.

Due to the Grey-Line Series, the procedure permits an accuracy of up to 0,001 mm depending on its measuring range. By the Grey-Line, the range on natural surfaces amounts to max. 170mm. The sensors incorporate automatic regulation of the light intensity and thereby provide unsurpassed measuring characteristics.

The LASE 1000T Sensors in general are a compact unit because of the fact that the optical elements are integrated with the electronic components in a durable aluminium housing. The sensors do not contain mobile parts and are appropriate for the work in the heavy industrial environment!

Otherwise the LASE 1000T Black-Line Series offers larger measuring ranges with similar accuracies!

The complete LASE 1000T Series is used in conditions where precision demands have to be better than 1 mm, e.g. by thickness measurements or quality controls:



- Measurement of length, width, height, level and situation of objects and environments
- Positioning of machine parts
- Quality control of paper, steel or aluminum coils
- Measurement of slab width and thickness
- Measuring of liquid level and solid materials
- Measurement and regulation of slack

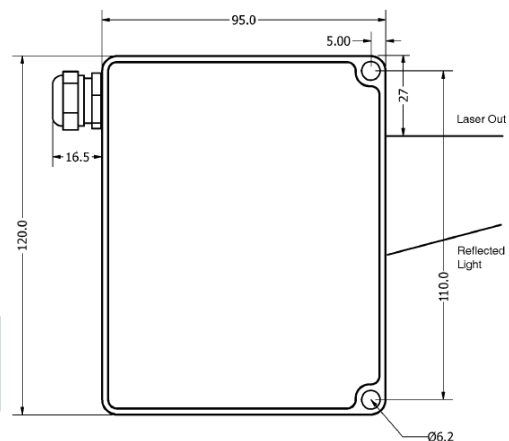
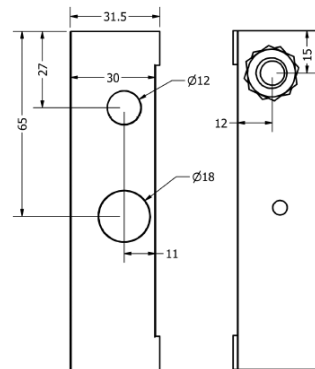
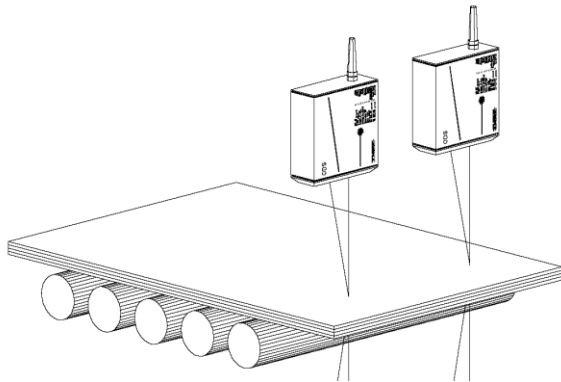
Technical Data: LASE 1000T Grey-Line series

Model	LASE 1000T-72.5	LASE 1000T-75	LASE 1000T-82.5	LASE 1000T-95	LASE 1000T-120
Measuring range	5 mm	10 mm	25 mm	50 mm	100 mm
Measuring range	70-75 mm	70-80 mm	70-95 mm	70-120 mm	70-170 mm
Center distance	72,5 mm	75 mm	82,5 mm	95 mm	120 mm
Resolution at short range*	0,001 mm**	0,001 mm	0,001 mm	0,001 mm	0,001 mm
Resolution at long range *	0,001 mm**	0,001 mm	0,002 mm	0,002 mm	0,005 mm
Linearity *	± 0,003 mm	± 0,004 mm	± 0,008 mm	± 0,013 mm	± 0,025 mm
Size of spot	∅ 0,2 mm	∅ 0,3 mm	∅ 0,3 mm	∅ 0,4 mm	∅ 0,4 mm
Temperature deviation	± 1,5 µ/C°	± 1,5 µ/C°	± 2,5 µ/C°	± 5 µ/C°	± 10 µ/C°
Updating frequency	2000/1000 Hz				
Light source	Visible Laser (655 nm)				
Laser protection class	IEC 2				
Interfaces digital	Standard RS 232- optional RS422				
analogue	4-20mA or 1-9 VDC / 14 Bit				
Supply voltage	24 VDC ± 10 %				
Power consumption	Max. 4,5 W				
Operating temperature	0 to +45 °C				
Degree of protection	IEC IP 65				
Dimensions in mm	95 x 120 x 30 mm				
Weight	370 g				

*) Resolution, Reproducibility and Linearity valid for static measurement on white paper. Slight tolerances are possible on other surfaces.

Scope of delivery LASE 1000T Series:

- Sensor
- Operating manual
- Configuration- & Visualisation software

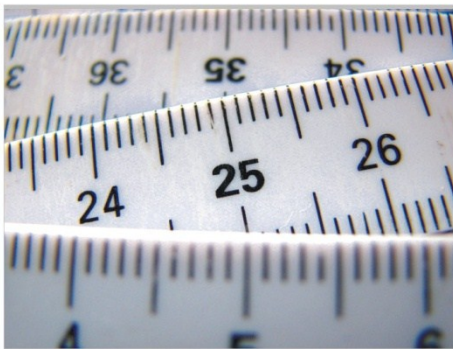


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