



Length measurement

Measuring geometric characteristics is one of the most common tests when carrying out material testing. The most well-known tool is the calliper gauge or the micrometer gauge (micrometer).

In this area of measurement, SAUTER confines itself to integrated calliper gauges which can be used in combination with deforming material testing.

Very often, the issue of material testing relates to a force which is exerted in connection with a specific deformation, i.e. expansion or compression of the test item.

In these cases, the force must be measured or recorded in relation to the distance travelled by the test item during the test.

Integrated calliper gauges serve to capture this distance. They are typically fitted in test stands, machines or plant.

As a guide, the following has been assembled as a sample system for a typical material test stand:

- Length measuring device, e.g. LB 300-2
- Calibration length measuring device, e.g. 961-150
- Test stand, e.g. TVM-N
- Fitting to test stand, e.g. LB-A02
- Data transfer software, e.g. AFH FD
- Force gauges, e.g. FH
- Calibration Force gauges, e.g. 961-162
- 2× RS-232/USB adapter, e.g. AFH 12



Irmgard Russo

Product specialist Length measurement

Tel. +49 7433 9933-208

Fax +49 7433 9933-29208

russo@kern-sohn.com

Quick-Finder

Readout [d] mm	Measuring range [Max] mm	Model SAUTER	Price excl. VAT, ex works €	Page
0,01	200	LB 200-2.	1050,-	45
0,01	225	LD 225	590,-	46
0,01	300	LB 300-2.	1150,-	45
0,01	300	LD 300	630,-	46
0,01	500	LB 500-2.	1250,-	45



Distance measurement directly in machines or sites with RS-232 interface

Features

- **Digital sliding calliper with a superior precision** even at high operation speed
- **Easy mounting** to machine tools, conveyer, test stands etc.
- Zeroing, pre-added and pre-reduced length as well as switching the unit can be done manually
- **Data interface RS-232**, standard
- **Selectable measuring units:** mm, inch

Technical data

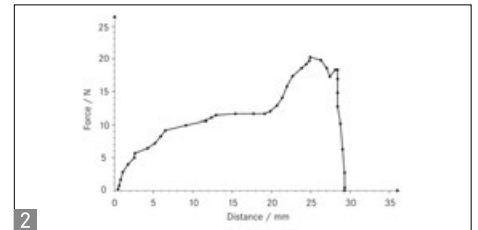
- Dimensions housing W×D×H 77×43×34 mm
- Battery operation, batteries standard (3 V CR2032)

Accessories

- **RS-232/PC connection cable**, SAUTER LB-A01, € 360,-
- **Mounting the length measuring device LB** onto a SAUTER test stand at the factory, SAUTER LB-A02, € 190,-

STANDARD				OPTION	
RS 232	ZERO	BATT	1 DAY	SOFTWARE	+4 DAYS

Model	Measuring range [Max] mm	Readout [d] mm	Direction of measurement	Price excl. of VAT ex works €	Option Factory calibration certificate	
					KERN	€
SAUTER LB 200-2.	200	0,01	vertical	1050,-	961-150	120,-
LB 300-2.	300	0,01	vertical	1150,-	961-150	120,-
LB 500-2.	500	0,01	vertical	1250,-	961-150	120,-



Linear potentiometer for length measurement

Features

- This linear displacement sensor, with its lengthways coupling without rods, is specially constructed for accurate recording of distances
- By means of its compact design it is also suitable for high processing speeds
- 1 Can be used in all electrical SAUTER force testing systems to determine distances e.g. within the scope of tensile or pressure testing
- Long service life: on average up to 100×10^6 cycles
- High data collection speed
- High-resolution linear position sensor with 65,000 points over the whole measuring range
- Data transfer box with 16-bit AD converter for high resolution and speed
- 2 You will need the SAUTER AFH LD software to read and evaluate data. This allows clear force-displacement analyses
- Scope of supply: Linear potentiometer, Data transfer box, mains adapter, USB cable

Technical data

- Measuring precision: $\pm 0,5\%$ of [Max]
- Reproducibility $< 0,03$ mm
- Internal measuring frequency: 100 Hz
- Overall dimensions WxDxH
LD 225: 374x68x38 mm
LD 300: 449x68x38 mm
- Cable length approx. 1 m
- Cable length mains adapter approx. 1,2 m
- Net weight approx. 0,7 kg

Accessories

- **Mounting the length measuring device LD** onto a SAUTER test stand at the factory, SAUTER LD-A06, **€ 260,-**
- **Force-displacement data transfer software** with graphical representation of the measuring process, only in combination with SAUTER LD, SAUTER AFH LD, **€ 250,-**

STANDARD



Model	Measuring range	Readout	Direction of measurement	Price excl. of VAT ex works €
SAUTER	[Max] mm	[d] mm		
LD 225	225	0,01	vertical/horizontal	590,-
LD 300	300	0,01	vertical/horizontal	630,-