

# STABILA®



**Controlled measurement quality – greater reliability on the site every day.**  
The measuring distance and accuracy of laser distance measurers are directly dependent on lighting conditions and the reflective behaviour of the target point. To ensure that measuring distance and accuracy specifications are valid under realistic building site conditions, the ISO 16331-1 standard specifies the conditions under which the given specifications for accuracy and measuring distances must be maintained. The STABILA LD 220, LD 250 BT, LD 320, LD 420 and LD 520 laser distance measurers fulfil these requirements.



EN 18882 10/15  
Errors or changes in colour, technology and equipment excepted.

## Laser distance measurers for real professionals: accurate, quick and reliable results for all applications

2015/16

1.800.561.8187

www.itm.com

information@itm.com

# The right laser distance measurer for every trade. Find the right measuring tool for your particular needs.

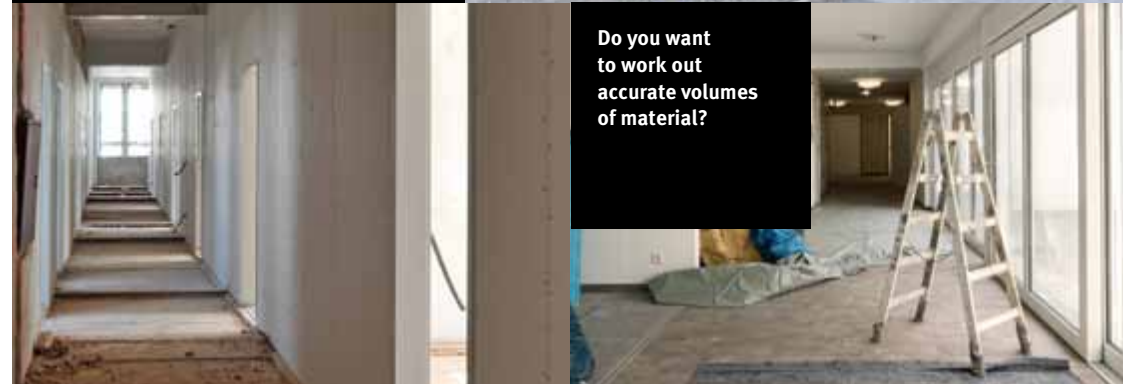
If you are thinking about buying a laser distance measurer, there are several things you should consider. This is especially true for tradespeople who need to take measurements and draw up quotes accurately and productively to save time and money (material used, for example). If you are adding a laser distance measurer to your toolbox, you must be sure to buy the right one. How? – Take a look at our checklist and find out which measuring tool is the best for you and your trade.

## What should you bear in mind when selecting a laser distance measurer?

1. Will I be using the measuring tool indoors, outdoors or both?
2. Over what distances do I usually measure?
3. Do I just need the basic measuring functions, such as distance, area and volume, or do I need an tool offering more functions?
4. Do I need an interface for sharing the data measured?
5. Do I want to process the measurement data directly on the tool so I can draw up a quotation at speed?
6. How precisely do I need to measure?

Compare all of the STABILA laser distance measurers:

1. Laser functions (pages 16 – 17)
2. Technical features and specifications (pages 18 – 19)







## Laser distance measurer LD 220: Measuring made easy

- Compact, easy-to-use laser with 4 basic measuring functions: length, area, volume and continuous measurement
- The laser delivers quick measurement results and assists you in your daily work, when calculating how much material is needed, for example
- The large digits make it easy to read
- Impact-resistant housing with shock-absorbent STABILA soft grip casing
- Designed for measurements up to 30 m

### LD 220, (Art. No. 18816/o)

Comprising: Laser distance measurer LD 220, 2 x AAA batteries

Laser class	Output	Laser wavelength	Accuracy	Measuring distance
2	< 1 mW	635 nm	± 3.0 mm*	0.2 – 30 m*

Battery life	Batteries included	Protection class
up to 5,000 measurements	2 x AAA	IP 54

\*Favourable conditions: white and diffusely reflecting target (wall painted white), weak background lighting, moderate temperatures



**For all those who take pride in the quality of their work. Real professionals measure with STABILA.**

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**Measure up to 30 m**



### Use

- For everyone who works indoors

#### Use

- For everyone who works indoors and needs to document a large number of measurements



## Laser distance measurer LD 250 BT: Measuring and documentation made simple

- Compact, easy-to-use laser with integrated Bluetooth® Smart 4.0 technology enables measurement data to be wirelessly transferred from the laser to a smartphone or tablet
- Free STABILA Measures app lets you transfer measurements directly to photos of the building site or drawings
- 4 basic measuring functions: length, area, volume and continuous measurement
- The laser delivers quick measurement results and assists you in your daily work, when calculating how much material is needed, for example
- The large digits and display lighting make it easy to read
- Impact-resistant housing with shock-absorbent STABILA soft grip casing
- Designed for measurements up to 50 m

#### LD 250 BT, (Art. No. 18817/7)

Comprising: Laser distance measurer LD 250 BT, 2 x AAA batteries

Laser class	Output	Laser wavelength	Accuracy	Measuring distance
2	< 1 mW	635 nm	± 2.0 mm*	0.2 – 50 m*

Battery life	Batteries included	Protection class
up to 5,000 measurements	2 x AAA	IP 54

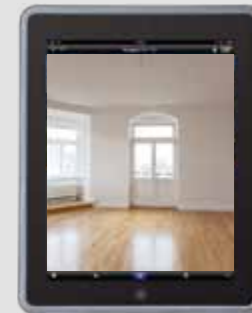
\* Favourable conditions: white and diffusely reflecting target (wall painted white), weak background lighting, moderate temperatures



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Measure up to 50 m



Wireless connection to smartphone or tablet thanks to integrated Bluetooth® Smart technology (4.0) in the LD 250 BT. The free STABILA Measures app for iOS or android makes the transfer process incredibly simple.

More information on pages 14 – 15.



**NEW**

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New technology – improved measuring distance and accuracy



Measure up to 60 m

## LD 320 laser distance measurer: Extremely compact – covers all of the most important measuring functions

- Compact tool with 8 measuring functions: length, area, volume, continuous measurement, Pythagoras with 2 and 3 measuring points, minimum and maximum tracking
- Rapid measuring results and easy operation ensure trouble-free work
- The large digits and display lighting make it easy to read
- Designed for measurements up to 60 m
- Impact-resistant housing with shock-absorbent STABILA soft grip casing
- The target tool (notch and bead principle) integrated in the housing allows targets to be located, even at great distances
- Includes a belt pouch and wrist strap

### LD 320, 3-part set (Art. No. 18379/0)

Comprising: LD 320 laser distance measurer, belt pouch, wrist strap

Laser class	Output	Laser wavelength	Accuracy	Measuring distance
2	< 1 mW	635 nm	± 1.5 mm*	0.05 – 60 m*
Battery life		Batteries included	Protection class	
up to 5,000 measurements		2 x AAA	IP 40	



\* Favourable conditions: white and diffusely reflecting target (wall painted white), weak background lighting, moderate temperatures

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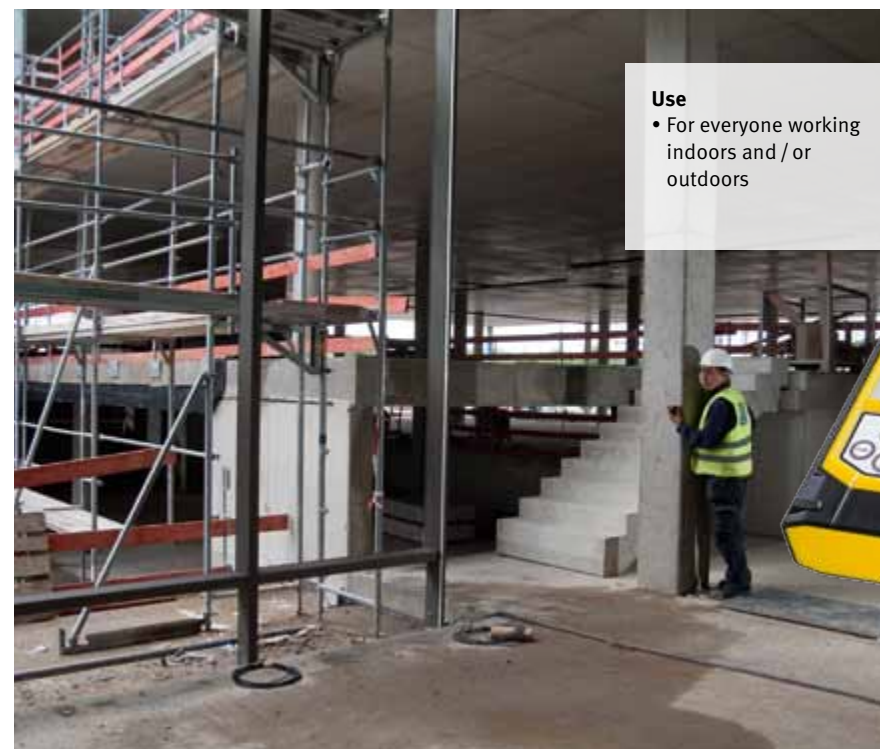
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### Use

- For everyone working indoors and / or outdoors



# LD 420 laser distance measurer: Work intuitively – for taking measurements and drawing up quotations quickly

- Innovative control panel allows intuitive navigation and work
- Built-in calculator for making calculations based on measurement data
- Stores personal constants (e.g. price per square metre of a material)
- Designed for use on construction sites – waterproof and dustproof in accordance with protection class IP 65
- Comprehensive function package – 13 measuring functions: length, area, volume, continuous measurement, chain dimensions, Pythagoras with 2 and 3 measuring points, Pythagoras partial distance with 3 measuring points, minimum and maximum tracking, timer, distances, trapezoid
- You can call up additional information such as scope, wall and ceiling areas
- Designed for measurements up to 100 m
- Display lighting makes it easy to read
- Impact-resistant housing with shock-absorbent STABILA soft grip casing
- The target tool (notch and bead principle) integrated in the housing allows targets to be located, even at great distances
- 1/4" thread for fixing on a tripod – makes accurate locating possible
- Includes a belt pouch and wrist strap

## LD 420, 3-part set (Art. No. 18378/3)

Comprising: LD 420 laser distance measurer, belt pouch, wrist strap

Laser class	Output	Laser wavelength	Accuracy	Measuring distance
2	< 1 mW	635 nm	± 1.0 mm*	0.05 – 100 m*

Battery life	Batteries included	Protection class
up to 5,000 measurements	2 x AAA	IP 65



\* Favourable conditions: white and diffusely reflecting target (wall painted white), weak background lighting, moderate temperatures



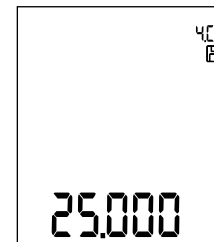
## Use

- For everyone working indoors and / or outdoors, for whom an tool with optimum protection is highly important



Measure up to 100 m

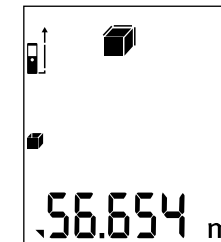
## Take a measurement and draw up a quote quickly on site:



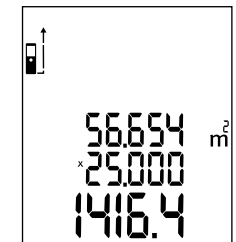
**1. Input of constants:**  
Save frequently required constants in the memory. Example: price per square metre for a wall area to be wallpapered is €25.00.



**2. Take measurement:**  
Measure a room with the measuring function "Volume". Result in cubic metres.



**3. Call up required additional information:**  
Press menu button briefly and call up the additional information. Example: Wall areas without floor and ceiling 56.654 m².



**4. Calculation:**  
Press multiplication button and multiply the area value by the saved constant. Result: total cost for the wall area to be wallpapered is €1,416.40.



# LD 520 laser distance measurer: Digital target locator – the smart way to measure

- High-contrast 2.4" colour display
- Camera with high image resolution – pin-sharp images even in strong light
- Digital target locator with cross-hair and 4x zoom
- Integrated Bluetooth® Smart 4.0 technology for transferring measurement data
- Free STABILA Measures app lets you transfer measurements directly to photos of the building site or drawings
- 360° inclination sensor for flexible measurement from any position (displays  $\pm 180^\circ$ )
- 18 functions: length, area, volume, continuous measurement, chain dimensions, Pythagoras with 2 and 3 measuring points, minimum and maximum tracking, timer, distances, trapezoid, triangular area, inclination ( $\pm 180^\circ$ ), indirect

- distances and heights, inclined objects, elevation profiles
- Designed for measurements up to 200 m
- Impact-resistant housing with shock-absorbent STABILA soft grip casing
- Built-in calculator: lets you multiply or divide measurement data by fixed values (e.g. hourly rates or materials costs)
- 1/4" thread for fixing on a tripod – makes accurate locating of targets possible
- Includes a belt pouch and wrist strap

## LD 520, 4-part set (Art. No. 18562/6)

Comprising: LD 520 laser distance measurer, target plate, belt pouch, wrist strap

Laser class	Output	Laser wavelength	Accuracy	Measuring distance
2	< 1 mW	635 nm	$\pm 1.0 \text{ mm}^*$	0.05 – 200 m*
Battery life		Batteries included		Protection class
up to 5,000 measurements		2 x AA		IP 54

\* Favourable conditions: white and diffusely reflecting target (wall painted white), weak background lighting, moderate temperatures



## In the cross-hairs: exact targeting even in strong sunlight.

- Very useful in strong sunshine and over long distances: you no longer have to look for a little red laser point.
- Large colour camera display allows you to align the LD 520 accurately to the target point.
- Enlarge or reduce the view with the 4x zoom.

- Crosshair sight helps you aim at the target point. The distance is then measured precisely.
- Display brightness can be easily adjusted to suit ambient light conditions.
- The light sensor automatically controls the display lighting. This helps conserve battery life.

## Use

- For everyone working indoors and / or outdoors who has to locate targets over large distances



Measure up to 200 m



Quickly and precisely calculate values and document them in conjunction with the Bluetooth® Smart technology (4.0) integrated in the LD 520 and the free STABILA Measures app for smartphones or tablets.

More information on pages 14 – 15.

## LD 250 BT and LD 520 laser distance measurer with Bluetooth® technology: Wirelessly transfer and document measurements with ease



### Do you use mobile devices on the building site?

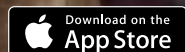
If so you will be impressed by the new possibilities: The integrated Bluetooth® Smart technology (4.0) allows wireless transfer of your measurement data from the LD 250 BT and LD 520.

We have developed a free app for your smartphone or tablet, **STABILA Measures**, which enables you to produce drawings of areas, spaces and buildings, or quick sketches by hand, and to dimension them directly.

Also measuring data can be easily inserted into photos of the site. As a result you can document everything straight away on site and communicate with your team via your smartphone.

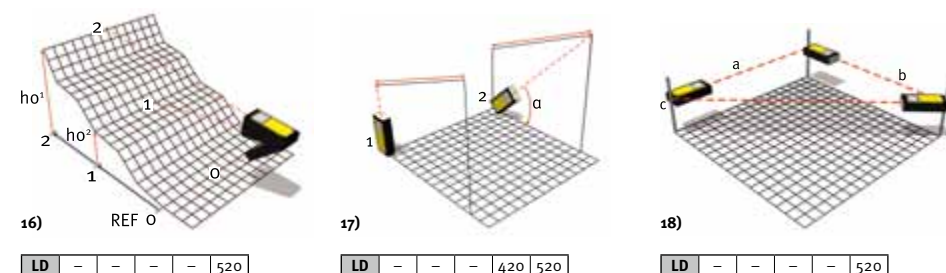
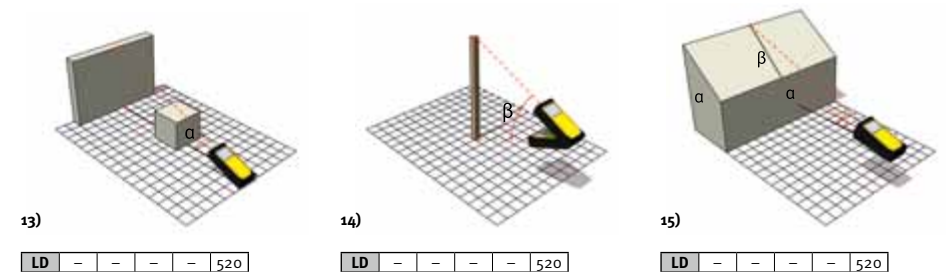
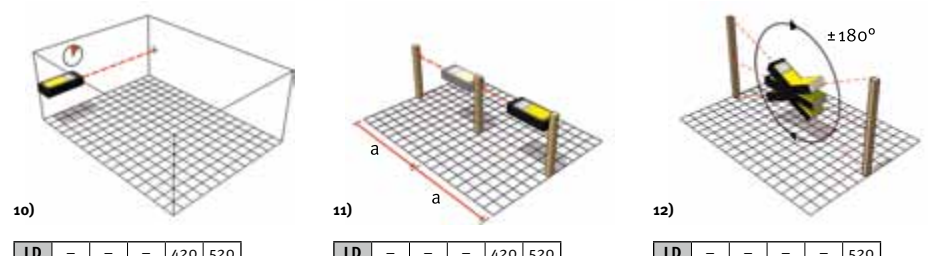
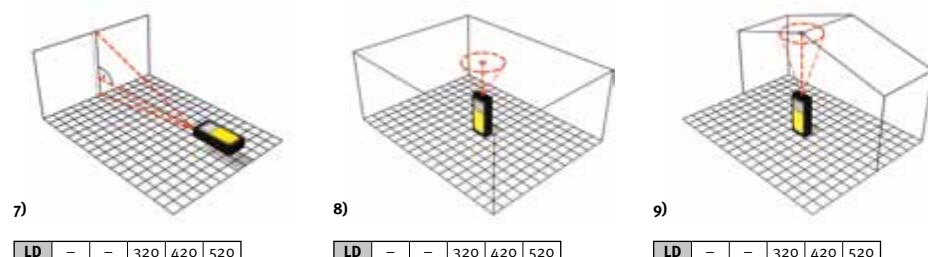
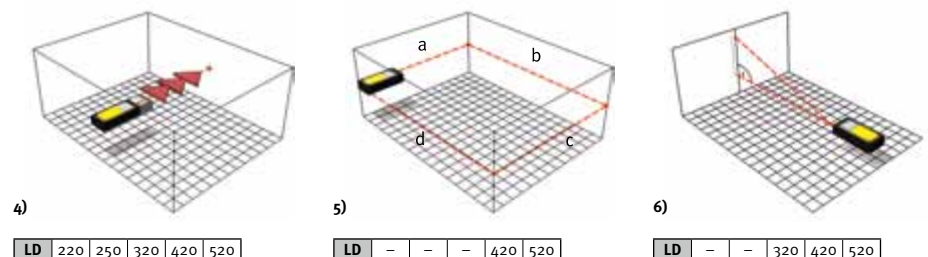
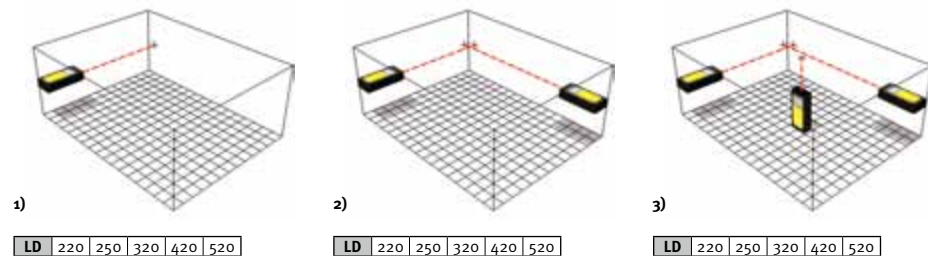


You can download the **STABILA Measures** app for iOS and android for free.





# Overview of functions: Check which function package you need



1) Length measurement

2) Area measurement

3) Volume measurement

4) Continuous measurement: for quickly finding a desired distance

5) Chain dimensions

6) Pythagoras function 1: determines a distance using two related measurements

7) Pythagoras function 2: determines a distance using three related measurements

8) Minimum tracking: minimum continuous measurement is used to determine the shortest distance between two points

9) Maximum tracking: continuous measurement to determine e.g. the maximum diagonal measurement

10) Timer: self-timer function, e.g. for shake-free measurement from a tripod

11) Stake out distances

12) Inclination measurement: the inclination sensor measures inclinations in the range  $\pm 180^\circ$

13) Indirect distance measurement: allows measurement of a horizontal line that cannot be directly accessed

14) Indirect height measurement: determines a height (e.g. of a building) that does not offer a suitable reflection point

15) Measurement of inclined objects: enables inclined, not directly accessible distances (e.g. a roof slope) to be measured

16) Elevation profile measurement: determines the difference in height between a reference point and other measurement points

17) Trapezoidal measurement: allows measurement of oblique lines that are not directly accessible

18) Triangular area measurement: calculates the area of a triangle by measuring the sides of the triangle

# Comparison of STABILA laser distance measurers

The right STABILA laser distance measurer for every need

LD 220



NEW

**Measuring made easy**  
• 4 basic measuring functions

LD 250 BT



NEW

**Measuring and documentation made simple**  
• 4 basic measuring functions  
• Bluetooth® technology for the wireless transfer and documentation of measurement data

LD 320



**Extremely compact – covers all of the most important measuring functions**  
• Enhanced function package  
• High measuring accuracy and precision

LD 420



**Work intuitively – for taking measurements and drawing up quotations quickly**  
• Comprehensive function package  
• Direct calculations with constants the user is free to define for establishing material and labour costs

LD 520



**Digital target locator – the smart way to measure**  
• Comprehensive function package  
• Bluetooth® technology for the wireless transfer and documentation of measurement data  
• Integrated calculator for calculating material and labour costs

	LD 220	LD 250 BT
<b>Area of use</b>		
Working environment	Indoors	Indoors
Target locator	–	–
Thread for use on tripod (reliable measurements over large distances)	–	–
<b>Functionality</b>		
Measuring functions (quantity)	4	4
Additional measurement data e.g. perimeter, wall areas, ceiling / floor area etc.	–	–
Data transfer	–	Bluetooth® Smart (4.0)
Measurement app (free)	–	STABILA Measures
Calculator (multiply, divide, add, subtract)	–	–
<b>Technical data</b>		
Measuring accuracy*	± 3.0 mm	± 2.0 mm
Measuring distance*	0.2 – 30 m	0.2 – 50 m
Display illumination	–	✓
Beep	–	✓
Reference change	Rear	Rear
History memory	–	–
Protection class	IP 54	IP 54
Size	approx. 115 x 53 x 25 mm	approx. 115 x 53 x 25 mm
Weight (incl. batteries)	approx. 95 g	approx. 95 g

\* Favourable conditions: white and diffusely reflecting target (wall painted white), weak background lighting, moderate temperatures

LD 320	LD 420	LD 520
Indoors / outdoors	Indoors / outdoors	Indoors / outdoors
Notch and bead principle	Notch and bead principle	Digital (camera display with 4x zoom)
–	1/4"	1/4"
8	13	18
–	✓	✓
–	–	Bluetooth® Smart (4.0)
–	–	STABILA Measures
–	Integrated calculation functions, calculation factors are predefined (parameters memory: 10 values)	Integrated calculator, calculation factors are entered individually
± 1.5 mm	± 1.0 mm	± 1.0 mm
0.05 – 60 m	0.05 – 100 m	0.05 – 200 m
✓	✓	✓
✓	✓	✓
Front, rear	Front, rear, end stop, tripod	Front, rear, end stop, tripod
–	Last 20 values	Last 30 values
IP 40	IP 65	IP 54
approx. 100 x 54 x 30 mm	approx. 122 x 56 x 30 mm	approx. 144 x 58 x 32 mm
approx. 100 g	approx. 130 g	approx. 220 g