STABILA
Laser distance measurer LD 520:
• Digital target locator using a built-in camera with crosshairs.
• 4x zoom.
• High-contrast colour display.
• 360° inclination sensor for complete flexibility.
• Comprehensive package of measuring functions.
• Bluetooth® Smart 4.0 for data transfer.
• Control buttons can be assigned individually.
• Calculations made easy with integrated calculator.
• Maximum precision even over long distances.

STABILA LD 520: Digital Target Locator. The smart way to measure.

ACCURATE. TOUGH. RELIABLE. EASY-TO-USE.
For everybody who takes measuring seriously: accurate, flexible and simply smart.

The laser distance measurer LD 520: dependable even over long distances.

Professionalism on site meets advanced technology:
- Digital target locator with 4x zoom to measure distances up to 200 m.
- 2.4” colour display.
- High image resolution – pin-sharp images even in strong light.
- Bluetooth® Smart (4.0) offers simple data exchange, e.g. with iPhone or iPad.
- New STABILA Measures app lets you insert measurements directly into photos or drawings.
- 360° inclination sensor for flexible measurement from any position (displays ±180°). The sensor allows you to make absolutely horizontal measurements and is also the basis for several new measurement functions (e.g. measuring over obstructions).
- Built-in calculator lets you multiply or divide measurement data by fixed values (e.g. hourly rates or materials costs). This gives you usable calculated figures, enabling you to give meaningful quotations on site.
- Comprehensive function package.
- Professional measurement accuracy, typical ± 1.0 mm.
- IP 54 protection class against rain / dust.
- Robust, impact-resistant housing with shock-absorbing softgrip cover.

Laser class:
Output Laser wavelength Typical measuring accuracy* Typical measuring distance*
2 1 mW 635 nm ± 1.0 mm 0.05–200 m

Protection class Battery life Batteries included Art. No.
IP 54 up to 5,000 measurements 2 x AA 18562

In the crosshairs: 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.

Comprising: laser distance measurer LD 520, belt pouch, 2 x AA batteries, with wrist strap.
Do you use mobile devices such as the iPhone or iPad on the building site?
If so you will be impressed by the facilities offered by the LD 520. The integrated Bluetooth® Smart technology (4.0) allows wireless transfer of your measurement data from the LD 520.

We have developed a free app for your iPhone or iPad, **STABILA Measures**, 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.

Supported iOS devices:
- iPhone 5, iPhone 4S, iPad mini, iPad 3, iPad 4,
- iPod touch (5th generation)

Wireless connection:
Bluetooth Smart (4.0)

You can obtain the **STABILA Measures** app free of charge from the App Store.
Find out how easy the LD 520 is to use with these selected functions:

press \( \text{on/measure} \), select function with the navigation button, then confirm with \( \text{on/measure} \).

<table>
<thead>
<tr>
<th>Elevation profile measurement</th>
<th>Inclined objects</th>
<th>Indirect height measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measures differences in height between a reference point and other measurement points. (Drawing 16, page 7)</td>
<td>Allows measurement of a horizontal line that cannot be directly accessed (e.g. a roof slope). (Drawing 15, page 6)</td>
<td>Determines the heights of buildings without a suitable reflection point. (Drawing 14, page 6)</td>
</tr>
<tr>
<td>Repeat for the reference point and each point of comparison:</td>
<td>Perform first for the upper, then for the lower measurement point:</td>
<td>Perform first for the lower, then for the upper measurement point:</td>
</tr>
<tr>
<td>• Press ( \text{on/measure} ) to activate laser</td>
<td>• Press ( \text{on/measure} ) to activate laser</td>
<td>• Press ( \text{on/measure} ) to activate laser</td>
</tr>
<tr>
<td>• Press ( \text{on/measure} ) to begin measurement</td>
<td>• Press ( \text{on/measure} ) to begin measurement</td>
<td>• Press ( \text{on/measure} ) to begin measurement</td>
</tr>
<tr>
<td>• To quit function: Press ( \text{on/measure} ) x 2</td>
<td>• After the 2nd measurement, press ( \text{on/measure} ) for the extra information</td>
<td>• After the 2nd measurement, press ( \text{on/measure} ) for the extra information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trapezoidal measurement</th>
<th>Stake-out function</th>
<th>Continuous measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just two measurements let you determine e.g. facade surface areas. (Drawing 17, page 7)</td>
<td>Two different distances (a and b) can be entered and then used for the mark out of defined measurement lengths. The distance to the next point is displayed. (Drawing 11, page 7)</td>
<td>Determines minimum and maximum distances, e.g. diagonals and horizontal distances in a room. (Drawing 4, page 7)</td>
</tr>
<tr>
<td>Procedure (repeat for two measurement points):</td>
<td>Procedure (repeat for two measurement points):</td>
<td>Procedure (repeat for two measurement points):</td>
</tr>
<tr>
<td>• Press ( \text{on/measure} ) to activate laser</td>
<td>• Enter value with navigation buttons ( \text{on/measure} )</td>
<td>• Press ( \text{on/measure} ) to activate laser</td>
</tr>
<tr>
<td>• Press ( \text{on/measure} ) to begin measurement</td>
<td>( \text{on/measure} ) Confirm with ( \text{on/measure} )</td>
<td>• Press ( \text{on/measure} ) to begin measurement</td>
</tr>
<tr>
<td>• After the 2nd measurement, press ( \text{on/measure} ) for the extra information</td>
<td>• After entering, press ( \text{on/measure} ) to start measurement</td>
<td>• Press ( \text{on/measure} ) for the extra information</td>
</tr>
</tbody>
</table>

### Overview of the main navigation buttons:

**On/Measure**
- The central button for switching the unit on and off and to initiate measurement.

**Activate digital camera function**
- Pressing once shows the target point on the display. The measurement point lies at the centre of the crosshairs.

**Rocker switch**
- This control pad lets you navigate through the menu. The enter button is at the centre, and this is also the "=\( \text{on/measure} \)" button when using the calculator.

**Back/Off**
- Use this button to undo the last function or to turn the unit off.

#### Functions
- **Self-timer.** (Drawing 10, page 6) Simple calculations with measurement data. The memory calls up the last 30 measured values in reverse order.
- **Change measurements with \( \text{on/measure} \) \( \text{on/measure} \).**
- **Call up detailed information with \( \text{on/measure} \).**
- **Press \( \text{on/measure} \) to accept value.**
- **Activate function.**
- **The unit displays the inclination constantly \( \pm 180\degree \).** (Drawing 12, page 7)

#### Add/Subtract
- **Simple addition and subtraction of measurement data.**

#### Personal favourites (1 per button)
- These 2 control buttons can each be individually assigned to a function that you use particularly often.

#### Area measurement
- **Determines the size of a surface. Additional information: perimeter.** (Drawing 2, page 6)

#### Volume measurement
- **Calculates the area of a triangle by measuring the sides of the triangle.** (Drawing 18, page 7)

#### Memory
- **The memory calls up the last 30 measured values in reverse order.**

#### Length measurement
- **Measures a distance.** (Drawing 1, page 6)
- **Measures a horizontal line over obstacles.** (Drawing 13, page 6)
- **Determines the volume of a space.** Additional information: perimeter, wall areas, ceiling areas. (Drawing 5, page 6)

#### Calculator
- **Select the calculator buttons with the navigation buttons and confirm with \( \text{on/measure} \).**
- **Press \( \text{on/measure} \) for the result.**

#### Timer
- **Self-timer.** (Drawing 10, page 6)
Comparison of measuring functions.

1) Length measurement.
2) Area measurement.
3) Volume measurement.
4) Continuous measurement.
5) Chain measurements.
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 ±180°.
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.
The right STABILA laser distance measurer for every need.

### Laser distance measurers LD 320 / LD 420 / LD 520

<table>
<thead>
<tr>
<th>Features</th>
<th>LD 320</th>
<th>LD 420</th>
<th>LD 520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical measuring accuracy*</td>
<td>± 2.0 mm</td>
<td>± 1.0 mm</td>
<td>± 1.0 mm</td>
</tr>
<tr>
<td>Typical measuring distance*</td>
<td>0.05 – 40 m</td>
<td>0.05 – 80 m</td>
<td>0.05 – 200 m</td>
</tr>
</tbody>
</table>

#### Measuring functions
- Length measurement
- Area measurement
- Volume measurement
- Continuous measurement
- Determination of chain dimensions
- Pythagoras 1: distance determined with 2 related measurements
- Pythagoras 2: distance determined with 3 related measurements
- MIN continuous measurement (Minimum tracking)
- MAX continuous measurement (Maximum tracking)
- Self-timer
- Staking out distances
- Inclination measurement
- Measurement of inclined objects
- Trapezoidal measurement
- Triangular area measurement
- Bluetooth
- Free app
- STABILA Measures
- Bluetooth Smart (4.0)
- Calculator
- Input of parameters (multiply, divide)
- Additional measurement data
  - e.g. perimeter, wall areas, ceiling/floor area
  - Perimeter, wall areas, ceiling/floor area etc.
- Parameters Memory
  - 10 values
- Histroy Memory
  - Last 20 values
  - Last 30 values
- Parameters Memory
  - 10 values
- Protection class
  - IP 40
  - IP 65
  - IP 54
- STABILA soft grip casing
- Target locator
  - Notch and bead principle
  - Notch and bead principle
  - Digital (camera display with 4x zoom)
- Display illumination
- Display
  - 2 rows
  - 4 rows
- Fold-out try square
  - Automatic end stop, front edge and tripod mount manual
  - Automatic reference change
- Reference change
  - Front, rear
  - Front, rear, end stop, tripod
- Beep
- Thread (suitable for tripod mounting)
  - 1/8"
- Display unit
  - 1 mm
  - 0.1 mm
- Units
  - 0.000 m, 0.00 m, 0.00" 1/16
  - 0.000 ft, 0.000 in, 0 in 1/2
- Size
  - approx. 344 x 58 x 122 mm
  - approx. 344 x 58 x 122 mm
  - approx. 344 x 58 x 122 mm
- Weight (incl. batteries)
  - approx. 90 g
  - approx. 100 g
  - approx. 220 g
- Battery life
  - up to 3,000 measurements
  - up to 4,000 measurements
  - up to 5,000 measurements

* 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 320, LD 420 and LD 520 laser distance measurers fulfil these requirements.

* applies for 100% target reflectivity (white painted wall), low background illumination, 25°C.
You can recognise a STABILA laser distance measurer by its quality of measurement and by the robust impact-resistant housing and shock-absorbent soft grip casing.

Laser distance measurer LD 320
The compact class. The one you always have with you, that offers all the basic measuring functions. Rapid measuring results and easy operation ensures trouble-free work.

**Comprising:** laser distance measurer LD 320, belt pouch, 2 x AAA batteries, with wrist strap.

<table>
<thead>
<tr>
<th>Laser class</th>
<th>Output</th>
<th>Laser wavelength</th>
<th>Typical measuring accuracy</th>
<th>Typical measuring distance</th>
<th>Protection class</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1 mW</td>
<td>635 nm</td>
<td>± 2.0 mm</td>
<td>0.05–40 m*</td>
<td>IP 40</td>
</tr>
</tbody>
</table>

**LD 320: measure up to 40 m***

* Without reflector plate (up to 50 m with reflector plate)

Laser distance measurer LD 420
The measuring genius. Useful for anyone who make measurements every day. Direct calculation with individually defined constants e.g. material and working costs enables a calculation on site. The wide range of functions and top accuracy ensure rapid, secure measuring results. Water and dust protected in accordance with IP 65.

**Comprising:** laser distance measurer LD 420, belt pouch, 2 x AAA batteries, with wrist strap.

<table>
<thead>
<tr>
<th>Laser class</th>
<th>Output</th>
<th>Laser wavelength</th>
<th>Typical measuring accuracy</th>
<th>Typical measuring distance</th>
<th>Protection class</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1 mW</td>
<td>635 nm</td>
<td>± 1.0 mm</td>
<td>0.05–80 m**</td>
<td>IP 65</td>
</tr>
</tbody>
</table>

**LD 420: measure up to 80 m**

** Without reflector plate (up to 100 m with reflector plate)

Our technical hotline will support you on all questions relating to product selection and use. Phone +49 6346-309-0. You can of course also email us at info@stabila.de

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Detailed product information is available on our website: [www.stabila.de](http://www.stabila.de)