# Leica DISTO™

The original laser distance meter





# Our promise

# Innovation by tradition



With almost 200 years experience, Leica Geosystems is the pioneer in the development and production of state-of-the-art surveying solutions. Our highly motivated development specialists use their strong innovative spirit to bring new ideas to reality. The resulting products impress with their accuracy, reliability and robustness. That's why industry professionals trust Leica Geosystems.

#### From professionals for professionals

In addition to comprehensive technical knowledge, thinking holistically about the needs and requirements of our customers has the highest priority at Leica Geosystems. Close cooperation with practical professionals leads to user-friendly products that fulfil the customers' expectations perfectly.

#### "Swiss Technology" creates confidence

To ensure that our equipment meets the highest requirements for precision and quality, we operate worldwide in state-of-the-art production centres where Swiss precision goes hand in hand with extraordinary craftsmanship and cutting-edge technology. Continuous extensive tests at all stages of development and production guarantee a consistently high standard of quality.



Close cooperation with professional users.



Highly motivated development specialists realise new ideas.



Continuous testing guarantees consistently high quality.



Products that impress through accuracy, reliability and robustness.



# Which Leica DISTO™ is right for me?

**Function** 

Distance measurement

Area measurement

Painter function

Volume measurement

Triangle / room angle function

Trapezium measurements

Pythagoras functions

Tilt measurement

Inclination tracking

Height tracking

Stake-out function

Timer

**Bluetooth** 

**Bluetooth** 

Subtraction / addition

Pointfinder with 4x zoom

Multifunctional end-piece

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Personalised favorites

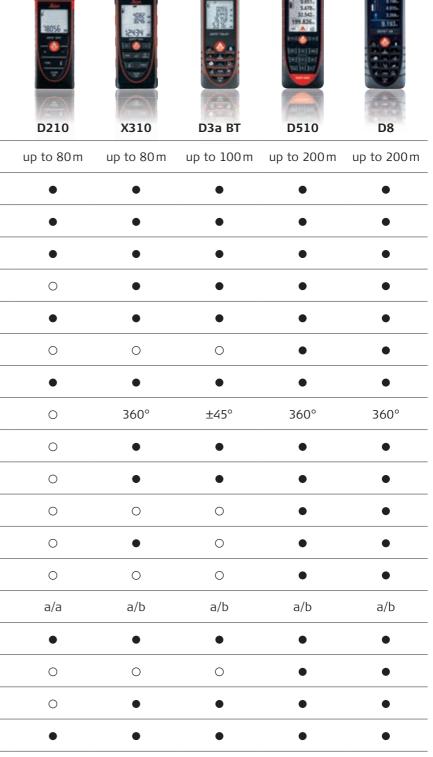
Smart Horizontal Mode™

Sloped object measurement

Height profile measurements

Minimum / maximum measurements

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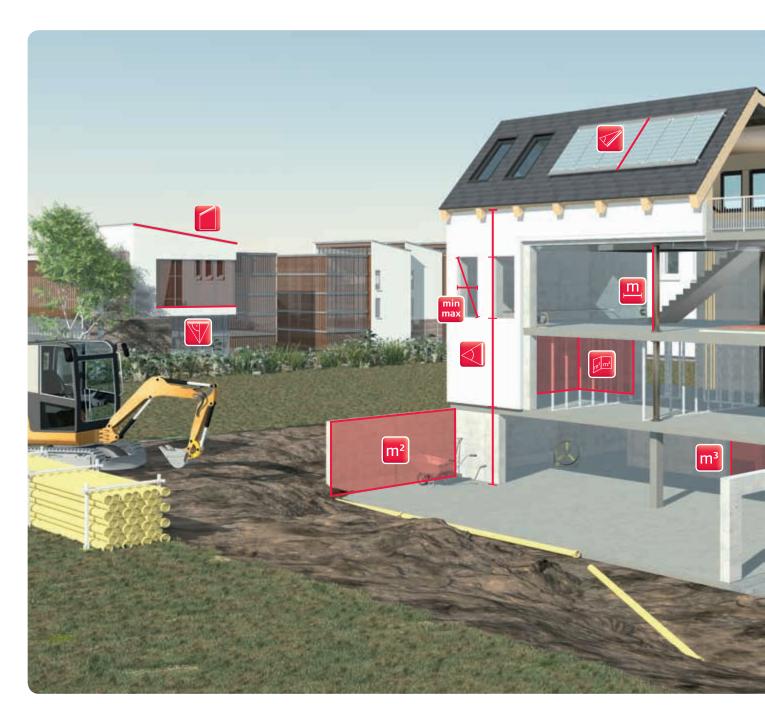
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# Measuring with the Leica DISTO™

# Simple, quick and accurate

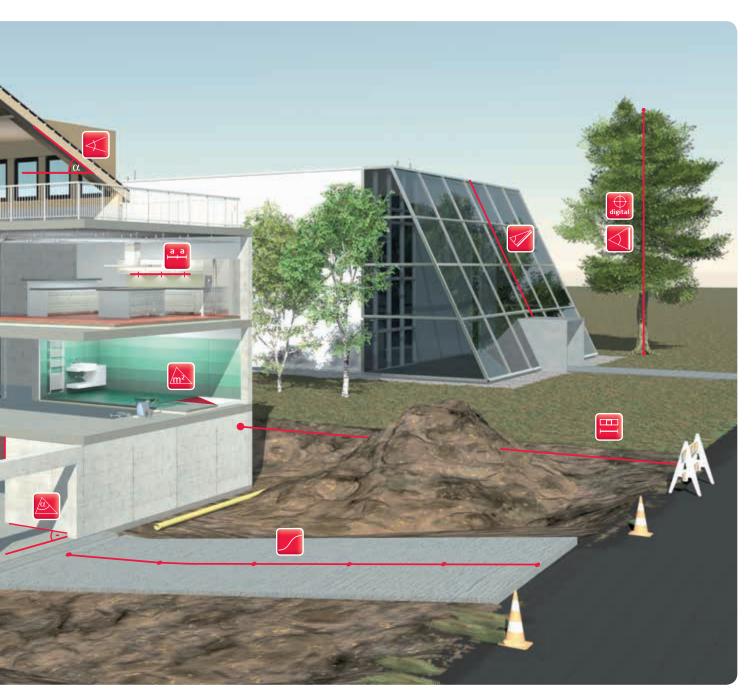


#### Quick and efficient

Measure distances and tilts at the touch of a button, in just a few seconds! Saving you time and money.

#### Precise and reliable

Measure distances to millimetre accuracy! Laser technology makes it possible.



#### Versatile and functional

The perfect solution for every measuring situation. With more flexibility for you.

#### Safe and modern

Avoid dangerous measuring situations at work. Use today's modern technology.





# 20 years DISTO™

# Pioneering the future by tradition



Twenty years ago, Leica Geosystems brought out the first hand-held laser distance meter and revolutionised the world market. Since then we have set the standards for productivity in modern measuring.



#### Multifunctional end-piece

Measuring from edges or corners – with the flip-out endpiece you are equipped for any measurement situation. The integrated sensor automatically recognises the correct reference point. Expensive measurement errors are therefore prevented.



#### Integrated tilt sensor

The combination of distance meter and tilt sensor allows the user to take indirect measurements of distance and heights much more accurately than with conventional measuring methods.



#### Pointfinder and colour display

The Pointfinder, with its 4x zoom and large colour display, makes targeting easier over long distances. The high resolution screen ensures a crystal-clear image, allowing you to measure perfectly, even in bright sunlight.



#### Free App Leica DISTO™ sketch

This App allows you to make simple sketches of a room or an object on a grid and dimension them. Measured results can also be added to photographs. It is even quicker when you measure and transfer the distances with a Leica DISTO<sup>TM</sup>.



# The right one for every job



DISTO™ D210
Simple functional

■ Precision at the touch

For everything you need to be accurate – the Leica DISTO™ D210 measures with an accuracy of ±1.0mm.

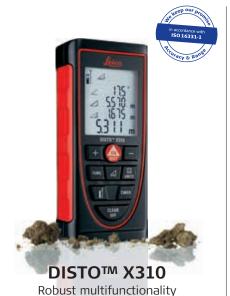
#### ■ Small and handy

of a button

Thanks to its ergonomic and compact design with soft grip, the Leica DISTO™ D210 fits securely in your hand, is lightweight and fits into any pocket.

#### ■ Multifunctional end-piece

Whether measuring out of corners, slots or from edges, with this end-piece you are prepared for all measuring situations. The instrument detects the end-piece automatically, which helps to avoid expensive measuring errors.



#### **■** Robust

The precision measurement module is protected by solid rubber. The Leica DISTO™ X310 is therefore particularly resistant. Passes drop tests from up to 2 m height.

#### ■ Protection class IP65

The housing and keypad are specially sealed against water jets and dust. Cleaning under running water is no problem.

#### ■ Tilt sensor 360°

Thanks to the combination of distance and tilt measurements, you can determine the horizontal distance absolutely precisely and simply – even over obstructions. With the help of the tilt sensor, you can also determine indirect heights.

#### **Bluetooth**



DISTO™ D3a BT

Transferable multifunctionality

#### ■ Error-free data transfer

You can transfer your measurement data directly to your PC with the integrated Bluetooth® technology and avoid expensive typing errors.

#### ■ Navigation keys

Using the navigation keys on the DISTO<sup>TM</sup>, you can control the movements of the cursor on your Android Tablet or PC.

#### ■ Free software

The data transfer software "Leica DISTO™ transfer" is included – simple to install and with automatic updates.









# Two with vision

# Precise targeting and measuring even in sunny conditions

Piccooling with 180 16331-1

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Reliable outdoor functionality

Quickly and easily, the Pointfinder with 4x zoom targets distant objects and works well in bright sunlight. Even if the laser dot cannot be seen with the naked eye, the target appears clearly on the large high-resolution colour display.

Distance measurements are absolutely precise over long distances.

#### Leica DISTO™ sketch





#### The App for quick sketches

Bluetooth® Smart technology allows data transfer to iPhones and iPads. The Apple App Leica DISTO™ sketch allows you to create clear, comprehensible sketches or photos, which can be precisely dimensioned with the help of the Leica DISTO™ D510.

#### ■ Smart measuring

The combination of tilt sensor and Pointfinder provides another means of simply and precisely taking measurements of heights. For example, if a building has no suitable reflective point, its height can still be determined using height tracking.

#### Personalised and helpful

Your favourite functions can be assigned to a pair of selection keys, for quick access with a single button press. The integrated, easy-to-understand help function does not leave you in the lurch on site.



**Bluetooth** 



**DISTOTM D8**Versatile multifunctionality

#### Highest precision

The combination of highly accurate tilt and distance measurements allows you to measure exact distances where conventional methods fail. The Leica DISTO™ D8 is even capable of simple levelling tasks without the support of a second person.

#### ■ Error-free data transfer

Bluetooth® technology can be used in combination with free Apps and the included software to transfer data to Android devices and Windows PCs.
The simple way to process your results in Excel®, AutoCAD® and other programs.

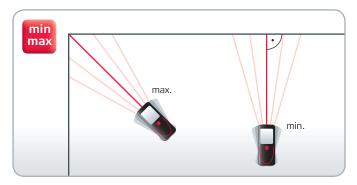
The Android App Leica DISTO™ sketch allows you to create clear, comprehensible sketches or photos, which can be precisely dimensioned with the help of the Leica DISTO™ D8.





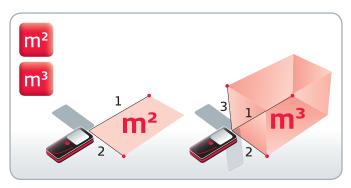


### Distances, areas and volumes



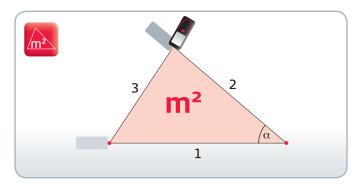
#### Minimum/maximum measurements

The maximum measurement is very helpful, e.g. for finding out the room diagonal. The minimum measurement can be used to measure at right angles to a wall.



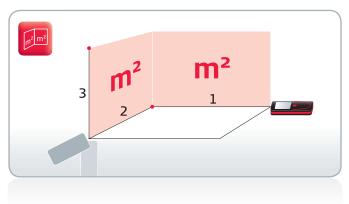
#### Area and volume measurements

With only two or three measurements, you can quickly and precisely calculate the area of a ceiling, floor or wall, or the volume of a room. No need to note down the individual values! The result is calculated automatically and shown on the display.



#### Triangle and room angle function

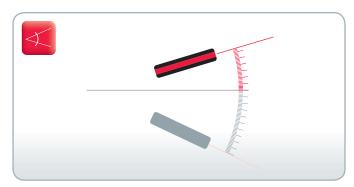
The triangle function helps you to calculate, quickly and efficiently, the area of a multicornered room. Divide the room into imaginary triangles. Using only three measurements, determine the area of each triangle, which you can add up cumulatively. Pressing a key gives you a detailed display of the room angle, so that you can e.g. quickly check whether it is a right angle.



#### **Painter function**

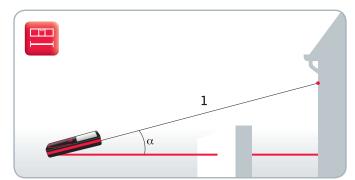
With this function you can determine e.g. the total wall area of a room without having to note down any intermediate results. Simply measure the lengths of the walls, which you can add or subtract as required. Finally measure the room height, which is then automatically multiplied by the previously calculated value.

#### Indirect measurements



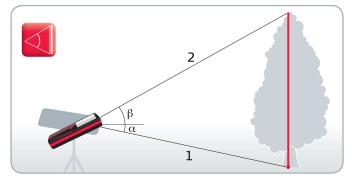
#### Tilt measurement

The tilt sensors in the Leica DISTOs™ can measure inclinations up to ±45°, or even have a measurement range of 360°. This means you can also measure inclinations over your head. This is particularly interesting for people who wish to determine roof slopes.



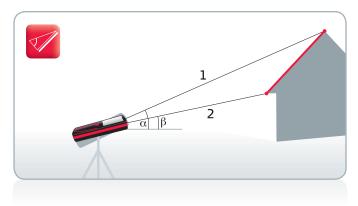
#### Smart Horizontal Mode™

The desired horizontal distance is determined using the tilt measurement, even if the object cannot be directly targeted horizontally. This function is very helpful, e.g. if walls, hedges or people are between the instrument and the target.



#### Height tracking

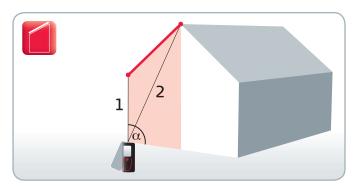
You can determine the heights of buildings or trees that have no suitable reflective points by using the height tracking function. Target with the Pointfinder on the bottom point of the height to be measured and take a measurement. Then target on the top point of the object. The display then shows the height.



#### Sloped object measurement

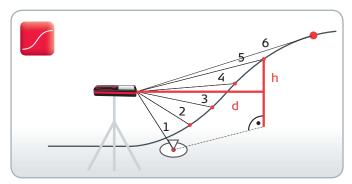
With this function, you can e.g. determine the roof slope of a house, even from a long distance away. To do this you take two distance measurements and the Leica DISTOTM determines the tilt at the same time. Additional detailed information, e.g. the distances and the inclination between the measured points, is also provided.

## **Special functions**



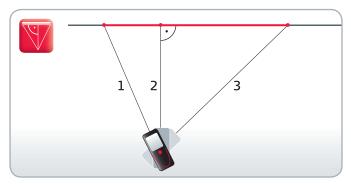
#### Trapezium measurements

Using the trapezium function, you can quickly and reliably determine e.g. roof slopes and facade areas. You need only two measurements. The integrated tilt sensor determines the tilt at the same time.



#### Height profile measurements

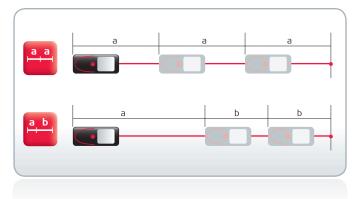
Target the device on a known reference mark and then measure the height differences of other points relative to this. If the measured points are taken all in one direction the profile of the ground can be determined from the measured horizontal distances and the height differences.



#### **Pythagoras functions**

Using the tripod, you can measure distances indirectly, horizontally and vertically. The Leica DISTO™ calculates the result automatically for you from three measurements. Functions such as automatic minimum and maximum measurements help you to measure the right point.

Partial heights, e.g. balcony or window heights, are determined by Pythagoras.



#### Stake-out function

One or two different distances (a and b) can be entered into the device and then used to subtract from defined measured lengths. The display always shows the current stake-out distance and a direction arrow. At a distance of 0.1 m to the next stake-out point, an acoustic signal sounds.

# Leica DISTO™ accessories



#### Leica TRI70 tripod

The small portable tripod is intended for everyday use. Its features include easy fine adjustment and a bubble level. Extendible length from 0.40m to 1.15 m. Ideal for use with Leica TA360 adapter. Art. No. 794 963



#### Universal quick charger

For charging 4 rechargeable batteries; type AA or AAA; With 4 adapters for worldwide use; Including 4 rechargeable batteries type AA / 2300 mAh Art. No. 782669



#### UC20 Universal quick charger

For charging 2 rechargeable batteries; type AAA; with 4 adapters for worldwide use; Including 2 rechargeable batteries type AAA NiMH / 800 mAh Art. No. 788 956



#### Leica TRI100 tripod

Quality tripod with bubble level, very easy fine adjustment. Extendible length from 0.70m to 1.74m.

Art. No. 757938



#### Leica LSA360 adapter

For precise indirect measurements with the tilt sensor from the tripod; tilt axis and laser beam are in one plane (elimination of tilt axis error). Suitable for a set-up pole with a diameter of 11–35 mm (0.45"–1.35") and the Leica TRI100 tripod. Art. No. 769 459



#### Leica TA360 adapter

Handy metal tripod head for easy and precise targeting. Rotary axis, tilt axis and laser axis meet at one point. This leads to minimum deviations when using indirect measurement. Particularly suitable for use with Leica TRI70 and TRI100 tripods.

Art. No. 778359



#### Leica GZM30 target plate

Stick-on target plates for placing on ground markers. Size: 274×197 mm. Art. No. 766560



#### Leica GZM26 target plate

For measurements on to poorly reflective surfaces. Two-sided – grey side for shorter distances and brown for longer. Size: 210×297 mm. Art. No. 723385



**Leica GZM27 target plate** Stick-on target plates for fixing on to edges and corners. Size: 147× 98 mm. Art. No. 723774



#### Softbag

Protects the Leica DISTO™ against dust and impact. With additional compartments for operating manual, target plates etc. Art. No. 667 169







#### GLB30 Super-light laser visibility glasses

outdoors. With 3 different lenses: laser visibility glasses, safety glasses and sun glasses. Art. No. 780117



# Your world of precision tools











The innovative power of the pioneer in laser measuring and construction products goes into every device: Leica Geosystems.

More information: www.disto.com





# PROTECT by Leica Geosystems

# We always protect your success



#### Lifetime Manufacturer's Warranty

Warranty coverage for the entire usage time of the product, in accordance with Leica Geosystems International Limited Warranty. This includes free of charge repair or replacement for all products that suffer defects as a result of faults in materials or manufacturing.

#### 3 Years No Cost Period

Leica Geosystems' products fulfil the highest quality requirements to support you efficiently in your daily work on site. To provide you with even more security, we offer a 3 year "no cost period" on all devices in the Leica DISTO™, Leica Roteo and Leica Lino range.

Should your product become defective under normal conditions of use (as described in the user manual), it will be simply and efficiently replaced by your dealer. Time is money. Simply register your device within 8 weeks from the date of purchase at www.leica-geosystems.com/registration and extend your no cost period from 2 to 3 years.

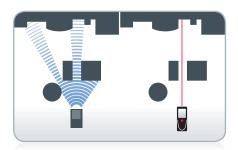
#### **Certified Quality**

Leica Geosystems runs calibration laboratories (No. SCS079) and a test laboratory (No. STS549). Both are fully accredited by the SAS, the Swiss Accreditation Service. The calibration and test certificates issued by Leica Geosystems are officially and internationally recognised for horizon, angle, distance, frequency and laser classification. This confirmation of precision guarantees the highest possible reliability for our products. All laboratories are regularly controlled by an independent national institution according to ISO 17025.

#### **Swiss Technology**

Our worldwide operations are state-of-the-art production centres, where Swiss precision, extraordinary crafts-manship and cutting-edge technology go hand-in-hand. Continuous and extensive tests throughout all stages of development and production ensure our products meet the highest standards for precision and quality.

## Good to know ...

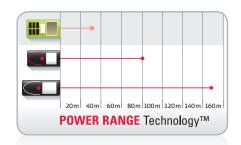


## Why are laser distance meters better than ultrasonic measuring devices?

Leica DISTO<sup>TM</sup>s measure with laser light – precisely and past all obstructions. Ultrasonic devices measure with sound waves, which propagate in a cone from the instrument and display inaccurate results. The sound waves are deflected by objects or columns. An ultrasonic device normally has a range of 20m, whereas a Leica DISTO<sup>TM</sup> measures up to 200m and provides greater accuracy!

#### What can Power Range Technology™ do for me?

Leica Geosystems based this innovation on a specially developed electronic component that offers great flexibility and provides a cost-effective way of modulating lasers over long distances. Power Range Technology™ allows reliable measurements to be taken over long distances even without a target plate.



# in accordance with ISO 16331-1

#### What does ISO 16331-1 tested mean?

The range and accuracy of laser distance meters depends greatly on lighting conditions and the reflective properties of the target object. For Leica Geosystems it is important that the performance of the device is maintained not only in the test laboratory but even more so on everyday site tasks. Therefore we have worked with external experts to develop a global standard to test laser distance meters and allow comparisons to be made between devices. Instruments tested in accordance with ISO 16331-1 achieve their promises. Further information can be found on our website: www.disto.com.

Bluetooth®
technology
at a glance

	Integrated Bluetooth® Technology	Windows computer	Android	Apple iOS
Leica DISTO™ D3a BT	Bluetooth® 2.1	Bluetooth® from 2.1	Bluetooth® from 2.1 with SPP profile Android from V2.3.3	-
Leica DISTO™ D510	Bluetooth® Smart	Bluetooth® 4.0 or Smart Ready	-	Bluetooth® 4.0 or Smart Ready from iPhone 4S and iPad
Leica DISTO™ D8	Bluetooth® 2.1	Bluetooth® from 2.1	Bluetooth® from 2.1 with SPP profile Android from V2.3.3	-

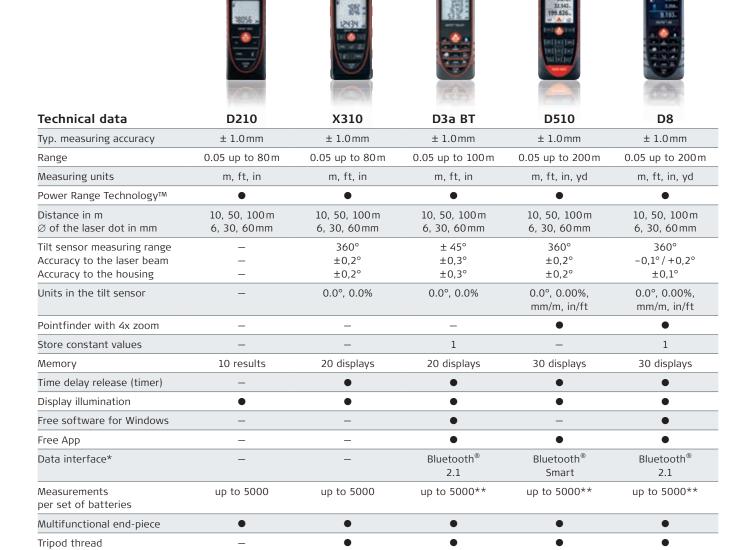
#### Software and Apps at a glance

Further interesting Apps in the field of measurement can be found in the relevant Appstore

	Where can I obtain this software?	Windows computer	Android	Apple iOS
Leica DISTO™ transfer Excel®, AutoCAD®	supplied or downloaded from www.disto.com	•		
Leica DISTO™ transfer Excel®	Available free on the Webstore		•	
Leica DISTO™ sketch	Available free on the Webstore		•	•

# The Leica DISTO™ Series at a glance

## Technical data



type AAA 2× 1.5V

IP65

122×55×31mm

155g

type AAA 2× 1.5V

IP54

 $127 \times 49 \times 27.3 \,\text{mm}$ 

150g

type AA 2× 1.5V

IP65

 $143 \times 58 \times 29 \,\text{mm}$ 

198 g

type AAA 2× 1.5V

IP54

 $114 \times 50 \times 27 \,\text{mm}$ 

126g

<sup>\*\*)</sup> Reduced in Bluetooth® mode



Batteries

Dimensions

Protection class

Weight with batteries



Laser class 2 in accordance with IEC 60825-1

All illustrations, descriptions and technical specifications are subject to change without prior notice. Printed in Switzerland. Copyright Leica Geosystems AG, Heerbrugg, Switzerland 2013

type AA 2× 1.5V

IP54

 $143.5\times55\times30\,\text{mm}$ 

205 g

<sup>\*)</sup> System requirements and other details can be found at www.disto.com



Jürgen Vallaster (Site operative)

"Thanks to the Leica DISTO $^{\text{TM}}$  X310 with its integrated tilt sensor, I can easily manage a wide range of measuring situations. And I am astounded how robust it is."



Jakob Galehr (Site engineer)

"The Pointfinder on the Leica DISTO™ D510 is really super. Now I can finally see where I'm measuring to, even in sunlight. I never go on site without my DISTO™."



Wilfried Fink (Carpenter)

"A device that measures distances and tilts, is robust and still fits in my pocket is perfect. Simply brilliant."

Dealer stamp		

