

FAQs

What are the most favourable measuring conditions?

To achieve an optimal measuring result, the target surface should have good reflecting characteristics (white, beamless, smooth). Furthermore the light conditions are crucial for the measurement. In the best case the target surface is not exposed to direct sunlight.

Can I measure on transparent surfaces?

No, measuring on or through transparent surfaces (e.g. window panes or water surfaces) can cause measuring errors. For transparent materials or liquids trial measurement have to be performed.

Can I measure inclined or round surfaces?

Yes, if there is enough area on the target surface for the laser spot, the measurement can be performed as well.

At short distances, I always receive the error signal 256.

If the target reflects too much, the Leica DISTO™ may receive too much return signal. Use the grey side of a target plate or a sheet of paper and take another measurement.

At longer distances, I always receive the error signal 255.

If the target reflects too little, the DISTO may receive too little return signal. Use a target plate (brown side) to increase the reflection. Additionally we recommend using a tripod for longer distances. This way you keep the Leica DISTO™ still and you improve the accuracy.

I have problems to see the red laser dot, how can I aim at a target?

To identify the laser dot easier, use our red laser glasses. The instrument can measure even if the human eye cannot see the laser dot. If you are aiming with Leica DISTO™A3, use the targeting aid to estimate the area where the laser is aiming the target. If you are working with Leica DISTO™ A5, use the integrated viewfinder to aim at the target. The crosshair indicates the area where the laser strikes it.

How can I perform an indirect measurement?

The indirect distance is calculated by using the Pythagoras theorem. The accuracy cannot be compared with an exact direct measurement; it is rather an approximation. To obtain the best possible result, we recommend to hold the center of the rotation of the Leica DISTO™ steady (e.g. with a tripod) and to use the minimum measurement function when a perpendicular measurement is required in the Pythagoras function.

What is the accuracy of the instrument?

The specified accuracy is valid for 30m at normal light conditions. Beyond that distance, additional errors may occur up to a maximum error of the accuracy of +/- 10 mm.

What does “typ. and max. accuracy” mean in our specifications?

Typ. (typical) accuracy means the accuracy under average measuring conditions, white target and daylight. The statistical confidence is 95% (2 times standard deviation).

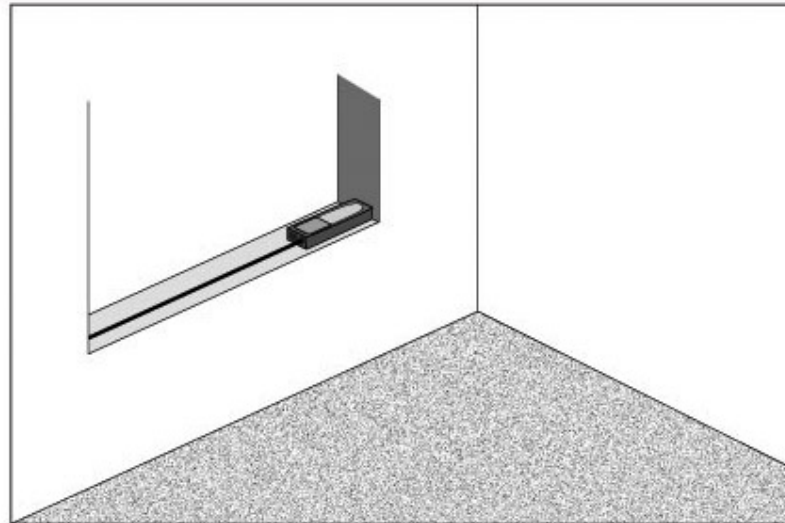
Max. (maximum) accuracy is the accuracy which occurs under unfavourable conditions.

Accuracy decreases when measuring long distances, measuring to poorly reflecting targets.



Checking measuring instruments (e.g. according to ISO 9001). How can I proceed?

You can perform the measurements required to check the measuring accuracy of the Leica DISTO™ in accordance with the stipulations of your quality management yourself. Select a known test measuring distance of approx. 1 to 10 m that remains permanently at the same length and is easily accessible (window sills, widths of rooms). Perform 10 measurements.



The length of the test measuring distance must be determined with an appropriately exact measuring tool, based on a national standard, (e.g. a class I or II steel tape)

Calculate the average value of the measurements and determine the standard deviation (Excel functions). Your Leica DISTO™ meets the specified accuracy, if the average value of the measured results remains ± 2 times standard deviation within the specified accuracy tolerance (set distance \pm typical accuracy).

A Leica DISTO™ that fulfills this test will operate over its entire range as specified in the Operating Manual. Should your usual measuring distances deviate strongly from the single test measuring distance, then we recommend performing the above procedure over several differing distances.

Is the laser beam harmful?

No. Our instruments belong to laser class II, which means that normally your eyes are protected by aversion responses including the blink reflex.

What is the warranty for my Leica DISTO™?

Leica Geosystems AG offers a warranty of 24 months as of date of purchase. Should you have eventually a problem within that time, your dealer will exchange it. Customer oriented, fast and unbureaucratic.

Where is a dealer near my place?

Always we are enlarging our distribution network. You will find a dealer near you on our webpage www.disto.com