# Vertex 5

## **Heights - Distance - Angle**

Foresters' preferred instrument for precision measurements

Vertex is many foresters' preferred choice of instrument to perform precision height, angle and distance measurements in the forest. The Vertex 5 can be used in dense vegetation and undergrowth.



- Measure Distance up to 30 meters or 100 feet with a resolution of 0,01 m or 0,1 feet even in dense vegetation, and with an accuracy of +-1% or better if calibrated
- Measure Heights up to 999 meters or 3277 feet with a resolution of 0.1m/0.1 ft
- Measure Angles in Degrees 360°, Grads 400° or percent % with a resolution of 0.1°
- 5000 data sets can be stored in the built-in memory and saved as a CSV file
- Bluetooth® 4.0 (BLE) can be used to transfer data wirelessly to devices with Android, iOS, or Windows
- (BAF) Basal Area Function to determine the minimum diameter DBH that a tree most have, on sample point to be counted
- Multilanguage, select your preferred language



Use the free app Haglof Link to receive the data file wirelessly from Vertex 5. You can then share it via email, Drop- box, iCloud, Google Drive or similar directly from the app.

Transponder T3 can be used in two positions, placed on the target or placed on the center plot stick with the 360° adapter. With the adapter it is possible to measure 360° degrees regardless direction to the transponder.



#### Vertex 5

Vertex 5 communicates with the transponder T3 and uses ultrasound as distance measurement technology. The instrument is capable of measurements up to 30 meters or 100 feet with a resolution of 0,01 m/0,1 feet. The given measurements are very precise, and the Vertex 5 is outstanding when working in very dense vegetation hidden by trunks, branches, and leaves, even when the transponder is not visible.

Vertex 5 has built-in temperatures sensors which ensures a distance accuracy of +-1% in temperatures between  $20^\circ$  to  $+45^\circ$ C/4°F to  $113^\circ$ F.

The Vertex 5 has a high-quality 3D tilt sensor to calculate angles that can be set in Degrees  $360^\circ$ , Grads  $400^\circ$  or percent %. With the new tilt sensor, Vertex 5 will give a correct result, with the resolution of  $0.1^\circ$ , even if the instrument is tilted when measuring.

Of course, the instrument is developed and designed for field work and is therefore water resistant with classification IP 67. The instrument housing is covered with silicone protection, which is comfortable in the hand and provide a solid grip when measuring.

The instrument is powered by only a single 1.5 volt AA alkaline battery that will last for several weeks of field work.

#### Interface

The instrument has only three keys that you use to scroll the menu and perform all measurements in a simple way.

The aiming sight is a see through red-cross sight that has been improved to give better visibility.

The brightness in the sight can be adjusted with the arrow keys. On the side there is an easy-to-read graphical display with text and icons.

#### Measuring functions

Vertex 5 is developed for measuring tree height, but it is of course possible to measure any preferable height.

The instrument measures the distance and angles then calculates the heights with trigonometry up to 999 meters or 3277 feet, with a resolution of  $0.1 \, \text{m}$  [0.1 ft].

It is also possible to measure only distance or angle, e.g. slope angle.

#### **VERTEX 5**

Size:	80x54x31mm (3,14"x2,12"x1,22")
Weight:	173 g (6.10 oz.)(incl. battery)
Battery:	1 x 1,5 AA alkaline, Current 20mA with Bluetooth 150mA
Temperature:	-20° to +45°C / -4°F to 113°F
Wireless interface:	Bluetooth 4.0 (BLE), IR
Memory	Storage 5000 data sets.
Signal:	Built-in loud speaker
Ultra sonic frequency:	25 kHz
Height:	999 m (3277 ft.). Resolution: 0.1 m/ 0.1 ft
Angles:	-90° to +90° deg./ -100° to +100° grads, Resolution: $0.1^{\circ}$
Distance:	30 m / 100 ft. With 360° adapter 20 m / 60 ft . Resolution: 0.01 m/ 0.1 ft Accuracy: 1%
BAF factors:	0.5, 1 to 9 (m2/ha) or 5, 10, 15to 50 (ft2/acre)
Languages settings:	Czech, Danish, English, Estonian, Finnish, French, German, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Russian, Spanish and Swedish.

#### TRANSPONDER T3

Size:	Diameter 70 mm/2,8"
Weight:	85 g/5 oz (Incl. Battery)
Battery:	1.5V AA alkaline
Consumption:	max 9mW

#### Sample plots

When using the center plot stick with the 360° adapter in the center of a sample plot, you can easily measure the distance and check if the trees on the plot are within the correct radius to be measured.

#### Sample points

When using a prism or similar, there is the BAF function to control the minimum (DBH) that the tree must have to be counted at sample points.

#### **Data storage and Communication**

The instrument has a built-in memory and can to store up to 5000 datasets. The data can be transferred by using Bluetooth to another device as a csv-file.

Communication can be done with Bluetooth® or IR (Infrared).

The instrument has Bluetooth® 4.0 Low Energy (BLE) that enables wirelessly direct transfer of results to Android, iOS or Windows devices.

It is also possible to use IR (Infrared) to transfer heights to Haglöf Sweden computer calipers.

#### **Haglof Link**

Measurements made with Vertex 5 can be stored in the internal memory.

The saved data can then be sent as a csv file wirelessly to the app Haglof Link - Files.

The files are stored in Haglof Link and can be shared via email, Dropbox, iCloud, Google Drive or similar directly from the app.



The files can also be opened directly from Haglof Link if you have an application in your device that supports the file format, example Excel.







#### **HAGLOF LINK**

It's Free and Available for download

Android - Google Play iOS - App Store















### Haglöf Sweden AB

Klockargatan 8, 882 30 Långsele, Sweden Phone: +46 620 255 80 Email: info@haglofsweden.com www.haglofsweden.com