



## Quick Guide

### ZORN D plus

The ZORN D plus is made for the wireless handling of your Light Weight Deflectometer ZFG and serves the generation of complete test reports on your Android or iOS device (from Android 5.1 and iOS 11.0 on).

Before using the ZORN D plus, also read the operating instructions for your Light Weight Deflectometer.



#### Technical Data

- Dimensions: approx. 100 x 50 x 10 mm
- Weight: approx. 100 g
- Connection sensor: 6,35 mm stereo audio jack
- Connection mobile device: Bluetooth (Low Energy)
- Energy supply: Lithium Polymer Batterie (rechargeable)
- Control Indicator: two LEDs
- Languages: German/English

Latest version of the D plus app loaded?



Read the operating instructions carefully before using the ZORN D plus!

Following requirements are necessary for using the ZORN D plus:

- You need to have the ZORN D plus application on your mobile device.
- You can download the application from the Google Play Store or from the Apple App Store for free. Alternatively, you can receive the download link for the ZORN D plus application from us.
- Your mobile device must have a Bluetooth function. The Bluetooth function must be enabled for the usage with the ZORN D plus.
- Your Light Weight Deflectometer needs to be calibrated together with the ZORN D plus and they must carry the same serial number.

## 1. Safety Instructions

Please read the instruction manual of your Light Weight Deflectometer before using your ZORN D plus.

- Protect the device against outside influences such as excessive direct solar radiation, humidity and soiling!
- Only open the protection cap for charging the device!
- Only use the included charging cable or rather a cable of the same type for charging the device!

## 2. Usage

### ▶ 2.1 Preparation

- Assemble the loading plate and the loading device as it is described in the according manual.
- Plug in the jack plug of the ZORN D plus into the plug socket of the loading plate. This plug socket also serves the connection between the loading plate and the usual electronic device.
- Through the magnets at the bottom of your ZORN D plus you can place the device skid-proof on the loading plate easily.
- The built-in thermometer automatically measures the environmental temperature.

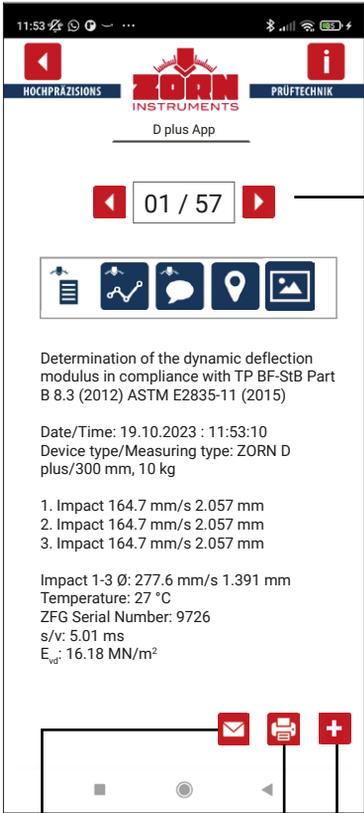
### ▶ 2.2 Connection Establishment

- Turn on your ZORN D plus by pressing the ZORN INSTRUMENTS logo. The right blue LED underneath the ZORN INSTRUMENTS logo should blink quickly.
- Open the ZORN D plus application on your mobile device. Tap on the first button „Start measurements“.
- Automatically, the ZORN D plus application starts to search for Bluetooth devices in the environment. You can see your ZORN D plus. Select the ZORN D plus for connecting. The app now automatically switches to measurement mode.
- The blue LED is now blinking significantly slower.



### ▶ 2.3 Measurement Performance

- See point „2.2 Connection Establishment“
- After a measurement (3 preload impacts/ 3 load impacts), the app switches to display mode. You can view your measurement result. Further measurements can be added by clicking on the button "+" at the bottom right.



### View Measurement

Lists all values (e.g. measurement point, date, time, s/v,  $E_{vd}$ , serial number etc.) of the test point (scroll down if necessary).



Switch back and forth between the measured data.



### Deflection Graph

Shows the three settlement curves of a measuring process in comparison (course of the settlement curves plus measured values).



### Remarks

Space for individual comments/supplements on the respective measurement.



### Measurement location

Shows the location of the measurement on a map.



### Photo test location

Add your individual test point photo here (one per measurement). You can take a photo directly or select a photo from your storage.



Sends the measurement data as .zrx files with an e-mail program installed on your end device. You can process this data in the ZORN FG WebApp.

A new window opens. Select the measurement(s) to be transferred to the protocol. To do this, click on the gray tick in the box in front of the respective measurement.

This will then turn green. Then press OK.



You can add project data in the next screen. Click on "Print Protocol" to create a PDF that you can save on your end device.

Click on the "+" button to start a new measurement.



### Info

Here you will find details on software version, calibration date and calibration factor ("D plus Info") and the current operating instructions.

## ▶ 2.4 Creating a test report

- Display the measurement results. Then click on the "Printer" icon and click on the measurements that are to be included in the protocol (see above).
- You can then add project-specific information (e.g. contractor, client, project title, tester, test point location, soil group, etc.).
- Then click on the "Print Protocol" button. You can save the created PDF on your device, send it by e-mail or print it.

## ▶ 2.5 Display of measured data

- If you would like to view the last measurements, press the "View measurements" button on the start screen of the app.
- You can also create a test protocol from the saved measurement results at any time afterwards.
- If you have saved several projects in the app, select the correct project in advance (see below) in order to view the corresponding measurement data.



## ▶ 2.6 Create and display projects

- Click on "Project" on the start screen.
- Create a **new project** using the "New" button. You will then be asked to enter a name for the project. Click on "OK" to confirm this. The new project is created. All following measurements are saved under this project.
- If you would like to **add new measurement** data **to a project** that has already been created, click again on the start screen on "Project". Select the project and press "OK". The following measurements are saved under this project.
- To **view** the different **measurements** of the individual projects, please always select the relevant project in advance. Only the measurements from this project will be displayed.

## 3. Settings

- You can open these via the "Settings" button on the start screen.
- Change the language, units, decimal places etc. as you wish.



## 4. Profil

- Create various profiles that you can choose quickly and easily to create a protocol. To do this, click on the "Profile" button in the corresponding window in which all project details are displayed and select accordingly.

## 5. Charging process

- During the charging process, the left-hand LED under the ZORN INSTRUMENTS logo lights up red. If the charging process is complete, the LED lights up green.
- You can charge your ZORN D plus using the micro USB cable supplied.



ZORN INSTRUMENTS GmbH & Co. KG  
Benzstraße 1 | 39576 Stendal | Germany

Phone: +49 3931 / 25 27 3-0  
Fax: +49 3931 / 25 27 3-10

eMail: [info@zorn-instruments.com](mailto:info@zorn-instruments.com)  
Web: [www.zorn-instruments.com](http://www.zorn-instruments.com)

