

## Vision Screener



reddot award 2014  
winner



### Short Manual 5

**“Documenting measurement results electronically”**

Plusoptix GmbH  
Neumeyerstrasse 48  
90411 Nuremberg  
Germany  
[www.plusoptix.com](http://www.plusoptix.com)

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This manual is a supplementary short manual. For general information about your Plusoptix device, such as its intended use, basic handling, technical information, maintenance, service, and warranty information, please refer to the user manual that was delivered with your device. This user manual can also be downloaded on our homepage [www.plusoptix.com](http://www.plusoptix.com), under support.

## List of further supplementary short manuals

1. Adjusting settings and setting up WLAN
2. Preparing and performing a measurement
3. Viewing the measurement results
4. Entering, retrieving or deleting patient data
5. Documenting measurement results electronically
6. Documenting measurement results on paper
7. Exporting back-ups and reports (only plusoptiX S12C and S16)
8. Downloading software updates
9. Troubleshooting malfunctions and measuring interruptions

## 1 Documenting measurement results – an overview

The measurement results can be documented electronically or on paper.

Documenting electronically means that you can save screening reports (see figure 1) on your workplace computer and also attach them manually to your electronic patient records.

If the device is connected to your Electronic Medical Record system for csv data exchange, the screening report and the measurement values can even be saved automatically to your Electronic Medical Record system.

Documenting on paper means that the measurement results can be printed out to attach them to a patient paper record. You can print a self-adhesive label on the wireless infrared label printer “plusoptix P12” or a screening report on any printer that is connected to your workplace computer. With the “plusoptiX S12” model, it is also possible to print the screening report directly on a mobile USB printer, without using a workplace computer.

More information about documenting the measurement results on paper can be found in supplementary short manual 6.

## 2 Documenting the measurement results electronically

Touch the printer (1) button in the navigation bar of a results page to do this.

In the plusoptiX S12C and S16 model, the patient data input screen is then displayed. Enter the patient data (see supplementary short manual 4), which should be displayed on the screening report and then touch the green checkmark (2) to confirm.

If the measurement results are to be documented anonymously, touch the checkmark (2) in the navigation bar without entering patient data. This will allow you to skip the patient data entry screen. The Plusoptix Vision Screener then saves the measurement under a consecutive patient ID. This is composed as follows:

<last 4 digits of the serial number-><consecutive number>-<date>-<time>



**Note:**

The “plusoptiX S12R” model does not have an internal patient database. Touching the printer button after the measurement in the “plusoptiX S12R” model will display a single line to enter individual patient data. This data will be portrayed on the screening report and on the self-adhesive label. Following explanations are for the “plusoptiX S12C” and “plusoptix S16” model, only.

More information about entering or retrieving patient data can be found in supplementary short manual 4.

As an alternative to manual entry of the patient data, the plusoptiX S12C and S16 can also be connected for a full integration with your EMR system (see chapter 3 “Full integration with your EMR system (only S12C and S16)”).



## 2.1 Saving screening reports

After confirming the patient data entry or the anonymous, consecutive patient ID (see supplementary short manual 4), a print job for label printing is sent via the infrared interface and a screening report is saved to the inserted SD card (plusoptix S12) or USB stick (plusoptix 16) at the same time.



**Note:**

The label can be printed on the wireless label printer “plusoptix P12” and the screening report can be printed manually or automatically on any printer that is connected to your network or workplace computer. More information about documenting the measurement results on paper can be found in supplementary short manual 6.



**Attention:**

All print jobs in print spooler are deleted once device is switched off or switches off for power saving automatically. Screening reports saved to a SD-card or USB stick are not deleted when the “plusoptix S12” is switched off or switches off for power saving.

The screening report is used to document the measurement values and the last camera image. For an anonymous measurement, the screening report is only saved to the SD card (plusoptix 12) or USB stick (plusoptix 16) after entering or retrieving patient data or confirming the consecutive patient ID number (see supplementary short manual 4).

Patient information

### Vision screening report

**Emily**  
First name

**Smith**  
Family name

\_\_\_\_\_  
Patient ID:

**06/24/2015**  
Date of birth:

**emily@smith.com**  
Contact information:

**Nuremberg**  
Location:

**01/23/2018**  
Date of measurement

	OD	OS
<b>Refraction</b> [dpt]	+3.75 -2.50 1°	+3.25 -2.75 175°
<b>Spherical equivalent</b> [dpt]	+2.50	+1.75
<b>Gaze asymmetry</b> [°]	4.2	
<b>Pupil diameter</b> [mm]	5.5	5.6
<b>Pupil distance</b> [mm]	66	

Screening result	
Anisometropia	
Astigmatism	Cylinder ≥ 0.75 dpt
Hyperopia	Spherical equivalent ≥ 1.00 dpt
Myopia	
Gaze asymmetry	
Anisocoria	
Refer	

ROC 1, Ver. 7.0.4.0

Vision screening does not replace a complete eye examination by an ophthalmologist or optometrist. Vision screening must be conducted regularly as eyes may change over time! Children with screening result "Refer" should be referred to an ophthalmologist or optometrist.

plusoptix

This refraction was measured with Plusoptix.

**plusoptix.com**

Accurate

Compatible

Award-winning

Reliable

info.png  
2200 x 570 pixels

Figure 1: Example of a screening report (Letter-sized or DinA4)

If the patient data has already been entered or retrieved before the measurement in the plusoptiX S12C or S16 model, the screening report is automatically saved to a SD card as a PDF file at the end of every successful measurement. If you see the status message “Try again”, the screening report must be saved manually.

To be able to allocate these screening reports to individual patients, the entered patient information can be found in the file names. In addition to the entered data, a date and time stamp and the measurement result are added.

PDF file name:

Last name\_FirstName-YYYYMMDD-HHMMSS-refer.pdf



**Note:**

If a patient ID has been entered in the Plusoptix Vision Screener instead of or as well as the patient name, this patient ID will be visible in the file name instead of the patient name



**Attention:**

The screening report is not stored in the internal patient database, but on the connected SD card (plusoptiX 12) or USB stick (plusoptiX 16). It will not be possible to retrieve screening reports in the internal patient database at a later stage. If the device has been connected to your EMR software via the device's CSV interface, it will be sent automatically to your EMR software if this selection has been enabled in the settings. In this case, it is not necessary to insert a SD card for transferring the PDF file with the “plusoptiX S12” model.

Saving the screening report takes a few seconds and depends on the storage medium. If the SD card or USB stick is removed too soon or the URL is accessed too soon, the PDF file will not be saved.

If the SD card or USB stick is removed too soon, it must be plugged back into the Plusoptix Vision Screener to save the screening report to the SD card or USB stick. The URL must be called up again if it is accessed too soon the first time.

## 2.2 Adding an individual infographic

An infographic is found on the lower edge of the screening report. You can design this as you wish. Create your graphic in png format with a size of 2200 x 570 pixels (w x h) and call your graphic “info”. Copy your graphic into the main directory of a USB stick. As soon as you connect the USB stick to the operational Plusoptix Vision Screener your graphic will be uploaded automatically. You can find a sample graphic with the correct measurements for the information column in the download area on our homepage ([www.plusoptix.com](http://www.plusoptix.com)).

## 2.3 Accessing the screening report

After saving the screening report to the SD card (plusoptiX 12) or USB stick (plusoptiX 16), there are four different options to electronically access them:

- a) Manual connection of the SD card or USB stick to a workplace computer
- b) Manual LAN / WLAN network access (only S12C and S16)
- c) Automated connection with the freeware plusoptiXconnect (only S12C and S16)

Following, please find detailed explanations.

### a) Manual connection of the SD card or USB stick to a workplace computer

Connect the SD card (plusoptiX 12) or USB stick (plusoptiX 16) to a workplace computer. The storage will be displayed as “removable medium” in your Windows Explorer or Apple Finder.

Open the folder “pdf” and choose the screening report you want save. You can copy it to any folder on your workplace computer or in the network.

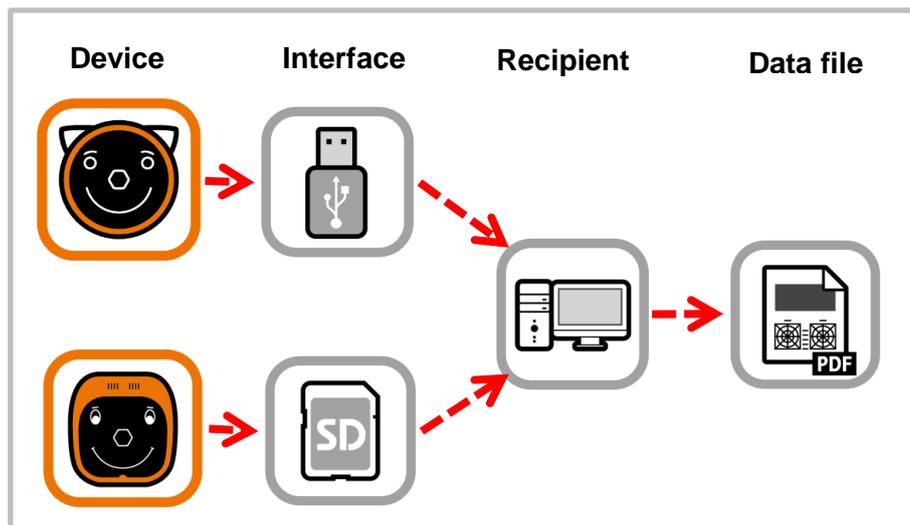


Figure 2: Manual connection of the storage device to a workplace computer

## b) Manual LAN / WLAN network access (only S12C and S16)

Open your Windows Explorer or Apple Finder. You can access the screening report at following URLs:

plusoptiX S12C:                    \\px12-xxxx\pdf (Windows Explorer)  
 (WLAN)                                smb://px12-xxxx/pdf (Apple Finder)

plusoptiX S16:                    \\px16-xxxx\pdf (Windows Explorer)  
 (LAN and WLAN)                    smb://px16-xxxx/pdf (Apple Finder)

The “xxx” place marker stands for the last four numbers of the serial number.

Choose the screening report you want save. You can copy it to any folder on your workplace computer or in the network. If the workplace computer displays the error message “Access denied”, restart Windows Explorer or Apple Finder.

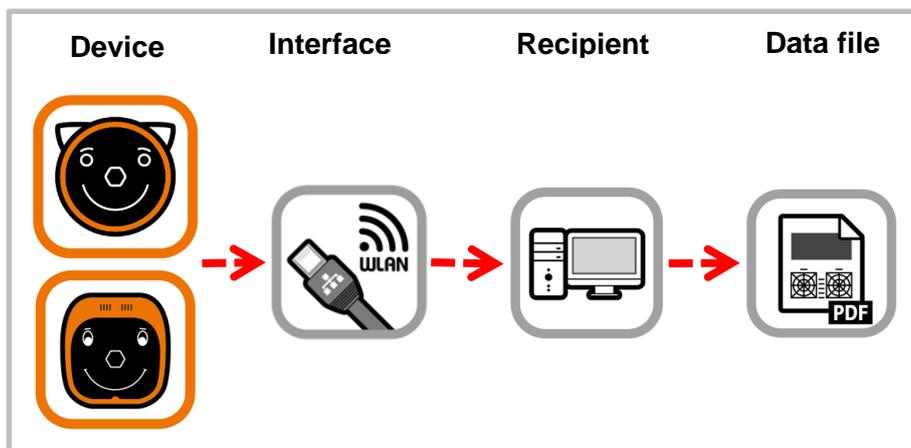


Figure 3: Manual LAN/WLAN network access

## c) Automated connection with the freeware plusoptiXconnect (only S12C and S16)

“plusoptiXconnect” is a freeware programme for automated connection and printing of screening reports. The plusoptiX S12C (WLAN) or S16 (LAN and WLAN) must be connected to the network via LAN or WLAN, too. The screening reports stored on the SD card or USB stick can now be filtered and portrayed automatically on your workplace computer.

You can download the freeware and its user manual from our homepage ([www.plusoptix.com](http://www.plusoptix.com)).

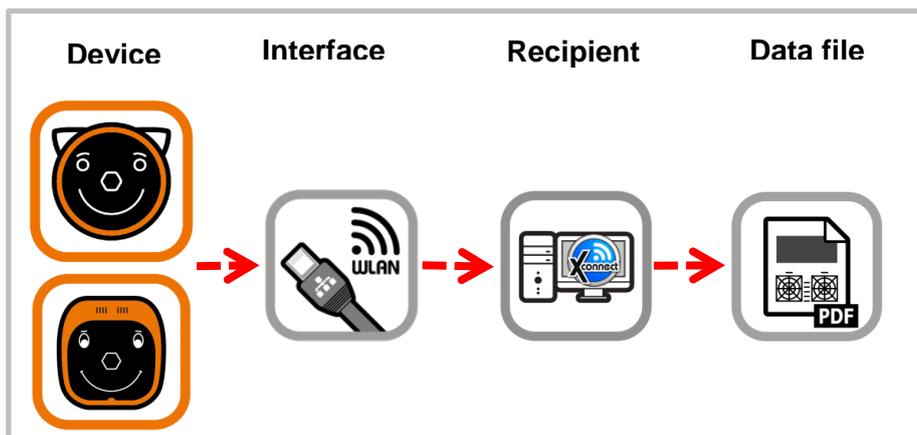


Figure 4: Automated connection with the freeware plusoptiXconnect

## 3 Full integration with your EMR system (only S12C and S16)

As an alternative to manual entry of the patient data, the plusoptix S12C and S16 can also be connected for a full integration with your EMR system.

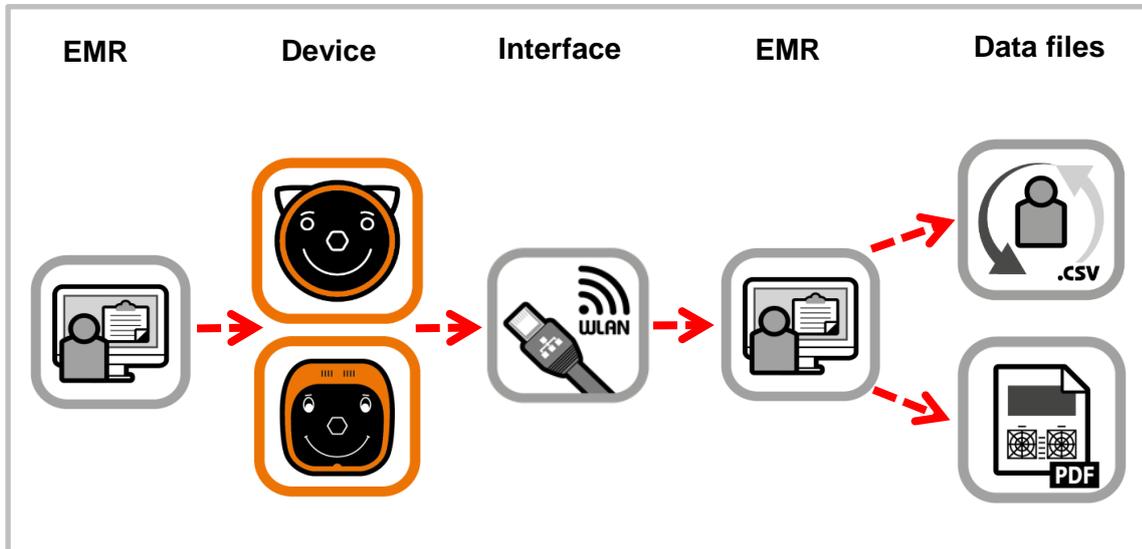


Figure 5: Automated connection to your Electronic Medical software

You simply have to choose a patient in your EMR system, and transfer the data to the device. After the measurement, the measurement results and the screening report will be retransferred and saved to your EMR system.

The screening report can be printed on any printer that is connected with your network or workstation computer.

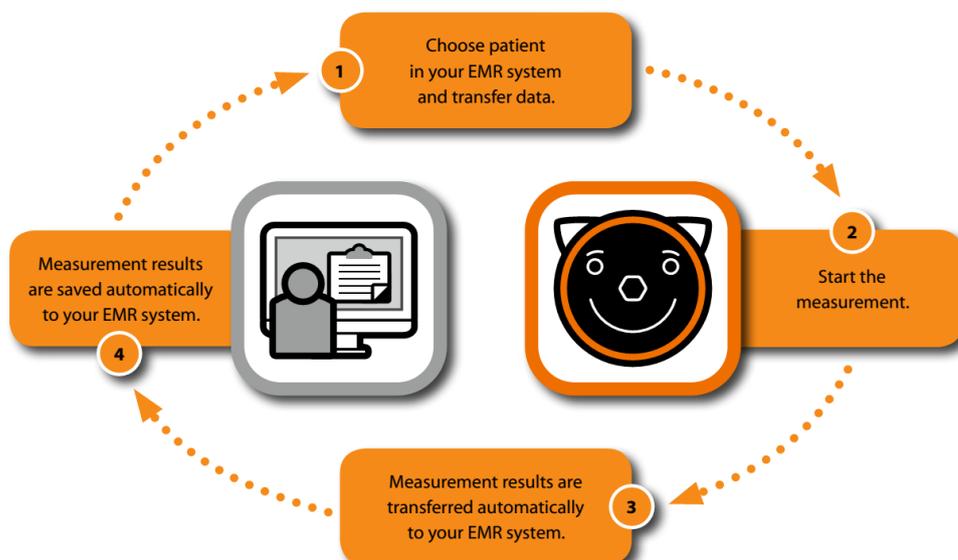


Figure 6: Automated transfer of patient data and measurement results

More information about csv file based EMR interface can be found on our homepage ([www.plusoptix.com](http://www.plusoptix.com)), under support.