

# eSense FAQ and Troubleshooting

for eSense Skin Response and eSense Temperature (effective 07/04/2018)

**Please consider these tips and tricks before you write Mindfield with a technical question!**

## **Question 1: How do I perform effective biofeedback-training?**

**How does the App work?**

**How do I use my own audio or video?**

**How should I interpret the measurements?**

Please see our extensive tutorial online at [www.mindfield.de/en/](http://www.mindfield.de/en/) on our pages for eSense products:

<https://www.mindfield.de/en/Biofeedback/Products/Mindfield%C2%AE-eSenseSkinResponse.html>

<https://www.mindfield.de/en/Biofeedback/Products/Mindfield%C2%AE-eSenseTemperature.html>

Read the guidelines inside the app, when tapping the “I” button.

For using your own videos in the app, please read this information about supported formats:

<https://developer.android.com/guide/appendix/media-formats.html>

<https://www.macxdvd.com/mac-dvd-video-converter-how-to/iphone-6s-supported-audiovideoformats.htm>

If you need to convert existing videos to a compatible format, you can do this with an online video converter. There are many available in the internet, here is a good example:

<http://www.onlinevideoconverter.com/en>

## **Question 1b: Which App do I need and where can I download it?**

There are 3 different Apps for the eSense: 2 free Apps for the eSense Skin Response or the eSense Temperature and one eSense Universal App (for the Skin Response and the Temperature).

You can use both eSense devices already with the free Apps. The Universal App offers the same functionality as the free App but beyond several additional functions in a new design.

You can download the Apps here:

eSense Skin Response for Android:

<https://play.google.com/store/apps/details?id=de.bottledsoftware.esenseskinresponse>

eSense Skin Response for iOS:

<https://itunes.apple.com/us/app/esense-skin-response/id496503504?mt=8>

eSense Temperature for Android:

<https://play.google.com/store/apps/details?id=de.bottledsoftware.esensetemperature>

eSense Temperature for iOS:

<https://itunes.apple.com/us/app/esense-temperature/id502971352?mt=8>

Universal-App for Android: <https://play.google.com/store/apps/details?id=com.mindfield.esense>

Universal-App for iOS:

<https://itunes.apple.com/us/app/mindfield-esense/id1141032160?mt=8>

**Question 2:** The values for the eSense Skin Response are very small (below 1.0  $\mu$ S). What can I do to improve the quality of measurement?

If you have dry or calloused hands, it is a good idea to use skin lotion before using the eSense. If you do this, make sure to do this every time so that the measurements are comparable. You can also try to slightly moisten your hands with water.

In some rare cases the values can remain very low (1.0 $\mu$ S), in spite of the measurement working in principle, displaying at least very small changes in value. In this case we recommend using one-way ECG electrodes. They provide a much stronger contact with the skin. You can apply these electrodes to multiple locations of your hands as displayed in the pictures.



You can purchase 50 disposable gel electrodes (size suitable for adults and children) for € 12.90. You can order on our online shop at <https://mindfield-shop.com/accessories/electrodes/emg-ecgedasingle-use-electrodes-for-adults-with-comfortable-breathable-fabric-pre-geled-50-pieces.html>.

If this produces no changes, or the measured value is completely constant, please proceed with question 6.

### **Question 3: Can I use the eSense with my device?**

Please see the pdf document on our products pages (see question 1), under "[eSense Compatibility \(sample list\) \(PDF\)](#)".

### **Question 3b: My eSense does not work with iOS 7 (or higher).**

The eSense works through the microphone port. From iOS 7 or higher you have to allow explicitly that the eSense app may use the microphone port, otherwise it will not work. You are asked for this during installation, please answer with "Yes" or "Allow". After installation you can make this setting manually: Allow the eSense app to use the microphone port in the system settings of your iOS device: Settings -> Privacy -> Microphone.

### **Question 3c: Which iOS devices are supported? Does the eSense work with an iPhone 7, iPhone 8 or iPhone X?**

The eSense-devices work with the Apple iPhone from 4S, the Apple iPad from 2<sup>nd</sup> generation, the iPad Pro, the Apple iPod touch from 5<sup>th</sup> generation and with the iPhone 7, iPhone 7 Plus, iPhone 8, iPhone 8 Plus and iPhone X (in combination with the included Lightning to 3.5 mm Headphone Jack Adapter).

### **Question 3d: Which Android Devices are Supported?**

Android smartphones and tablets from Android 4.4. Your Android device requires a 3,5mm jack (headphone jack) for external microphones.

### **Question 3e: Can I also use (Bluetooth-)speakers instead of headphones with the eSense?**

The (Bluetooth-)Speakers are blocked by Android and iOS when the eSense is plugged into the smartphone or tablet. There are two solutions to use external speakers:

You can simply plug in normal speakers via cable into the headphone jack of the eSense. We recommend the [Bose<sup>®</sup> Companion 2 Series III Multimedia Speakers](#).

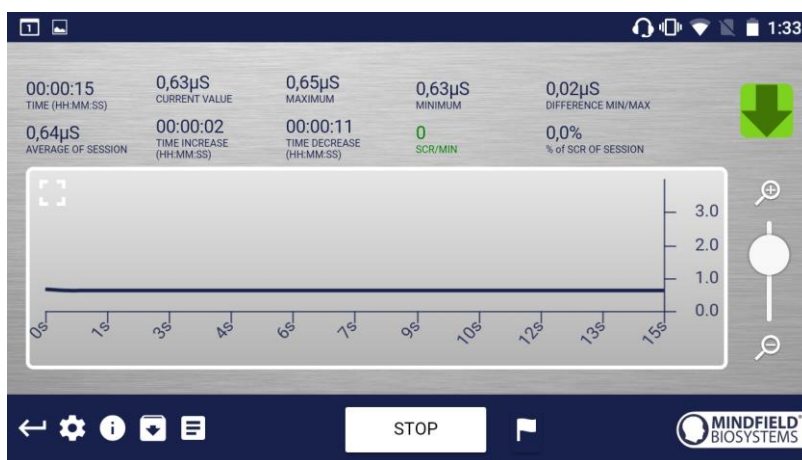
You can also plug in a [Bluetooth Transmitter](#) into the headphone jack of the eSense and hence connect Bluetooth speakers. We recommend the [Bose<sup>®</sup> SoundLink Mini Bluetooth Speaker II](#).

This solution has been tested by us with the named products and works for 100% without latency.

**Question 4:** A correctly connected sensor is not recognized by my Android device. The message "Please buy the sensor" is shown.

Please use the adapter cable that came with the sensor. Please also see the pdf document on our product pages (see question 1), under the section "[eSense Compatibility \(sample list\) \(PDF\)](#)". The adapter cable is necessary only in very few cases. Restart the app or your smartphone again if necessary, if the sensor is not correctly recognized.

**Question 5:** The app displays very low (well below 1.0  $\mu\text{S}$ ) and very constant values (without changes). The values do not react at all on stimuli like sudden very deep breathing.



Picture: eSense electrodes have no contact to each other

Sometimes the Velcro electrodes can have a bad contact with the snap buttons. Please turn and move the electrodes in the snap buttons, and press your fingers strongly against the electrodes to make a good contact. **Try replacing the electrodes with new ones, turn and press to see if you get a signal. Try another type of electrodes (e.g. [gel electrodes](#))**

Try to press the electrodes directly one against another short circuit). This should produce high values of 7 $\mu\text{S}$  and more. This shows that the eSense device is working correctly. If this is the case, please proceed with question 2.

**Question 6:** The app displays strongly fluctuating or senseless values.

Please lower the headphone volume of your device. If it is too high, it can disturb the measurement. Lower it until to the minimum and restart the app. If the problem still occurs, please continue with question 8.

**Question 7: The app displays a screen telling me that I need a sensor, but the sensor is plugged in.**

Please apply the answers to the question above (Question 4 & 6). If this does not help, please apply the answer of the question below (Question 8).

**Question 8: The app still displays strongly fluctuating or senseless values. Touching or releasing the sensor skin contact (Skin Response) or the thermometer (Temperature) does not make a difference.**

The sense is apparently not sending any measurements to the app. In this case, the app will show fluctuating, inaccurate values. Does your device have a 3.5mm headset (including microphone and headphone) bush? Some Android tablets only have a 3.5mm headphone bush with no microphone included. Please check the technical specifications of your device.

Please shut down the app. **Important:** Shutting down the app does not mean only closing it. You also must also end running program processes in your device's settings and delete current settings (empty the cache).

Please install the newest version of the app. Plug in the sensor and restart the app.

Please check if directly touching the skin contact (eSense Skin Response) or the temperature sensor (eSense Temperature) with your hand makes a difference in measurements. If this is not the case, please continue with question 6 or 10.

**Question 9: Which electrodes are working with the eSense?**

We offer 4 types of electrodes. Those have different advantages depending on the intended use. There are Velcro electrodes, Fingerclips (without gel), Gel electrodes and EDA Gel electrodes.

The Velcro electrodes are suitable for the beginning since they are inexpensive, re-usable and easy to use. The Fingerclips are suitable for the beginning as well, but more comfortable. The Gel electrodes have a better signal quality due to the gel, but are not re-usable. The EDA Gel electrodes are offering the most precise measured values and are re-usable, but require more effort in use and maintenance.

You can find a summary of the different types of electrodes here: [Overview electrodes \(PDF\)](#).

**Question 11: Is there a way to extend the cord of the eSense?**

If you wish to use a longer cord between the eSense and your smartphone or tablet, you can extend the original cord of the eSense with a common, 4-pin, 3,5mm jack headset extension cord. We have tested 3 cords that have worked:

2m cord: <http://amzn.to/2kJwqBM>

0,5m cord: <http://amzn.to/2kKEONs>

110cm cord: <http://amzn.to/2jJg1LZ>

All three suggested cords cost between £ 6-8 and are available f.i. from Amazon. Alternatively you should be able to use other 4-pin cords as well.

**Question 12: My eSense is still not working. It does not respond if I touch the electrodes or the thermometer or not. I have turned, pressed and changed the Velcro electrodes without any resulting improvement in the measurement. I have followed the instructions in question 1 and taken all other questions in this FAQ into account.**

Please check with at least one other smartphone or tablet device to see if your device is specific for your problem. Please test on an iOS device if possible, as they are known to work fine. For a list of compatible devices please see the pdf document on our products pages (see question 1), under "[eSense Compatibility \(sample list\) \(PDF\)](#)".

If the eSense fails on other devices too (strong fluctuation of values with no reactions) and none of the above questions helps to generate a good signal, you can exchange the eSense at the retailer where you purchased your eSense. Please ask the retailer to send the defect device back to the manufacturer.

If you bought the eSense directly at Mindfield, please follow the [return procedure](#), which you find on our website at „Support“ => „Return procedure“.