

Mindfield eSense

eSense Pulse



Mobile sensor for measurement of heart rate variability

Mobile sensor for measurement of breathing



eSense Respiration

Mindfield eSense

eSense Skin Response



Mobile sensor for measurement
of skin conductance

Mobile sensor for measurement
of skin temperature



eSense Temperature

eSense Muscle



Mobile sensor for measurement
of muscle activity

Our eSense Sensors

- With our eSenses you can **measure and effectively reduce your stress level** with biofeedback training
- Biofeedback with the smartphone, tablet or Browser (Web Application)



eSense Pulse





eSense Pulse

Biofeedback



- The Mindfield eSense Pulse is a convenient sensor for measurement of the **heart rate variability**
- The eSense Pulse is a **chest strap**, which performs a **1-channel ECG** measurement



eSense Pulse

Heart Rate Variability



- Heart rate variability depends directly on the state of **relaxation** or **stress**, making it a commonly used stress indicator



eSense Pulse

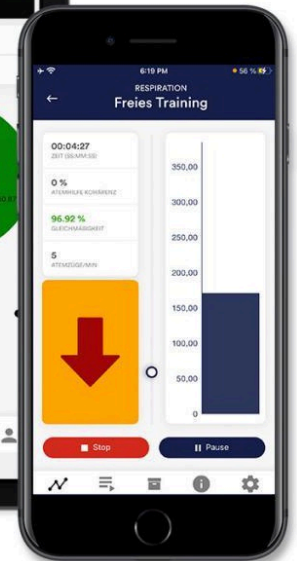
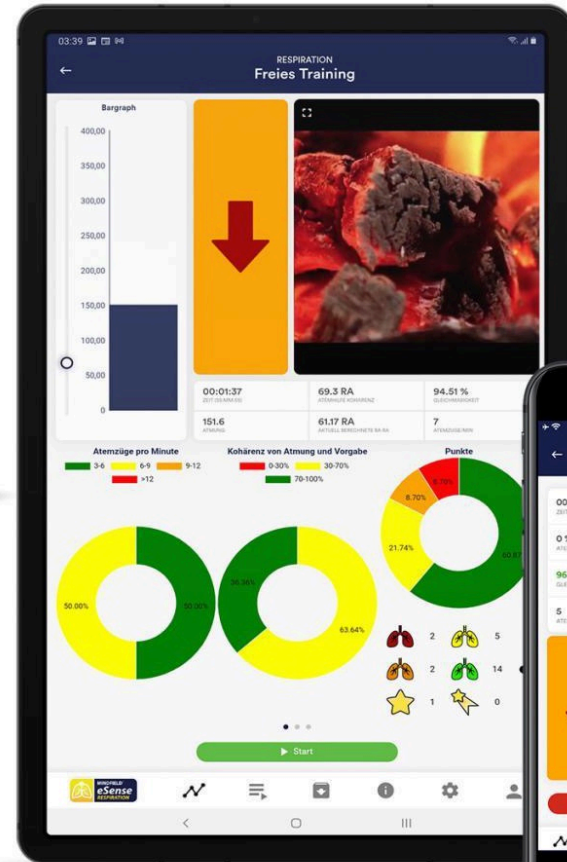
Details



- Sample frequency (internal): 500 Hz, RR intervals with 5 Hz to eSense App
- Measuring range: 30-240 BPM +/- 2 BPM
- Compatible with f.i. Kubios HRV Software and more



eSense Respiration





eSense Respiration



Biofeedback

- The Mindfield eSense Respiration is a small sensor to measure your **breathing**
- Application always in connection with eSense skin response as sensor cable
- Can optionally be used with the eSense Pulse



eSense Respiration



Respiration

- Respiration is related to **tension** and **relaxation** and is a valuable stress indicator
- 2 main measurements: Respiration amplitude (RA, how deep you breath) and breathing frequency (breaths per minute)



eSense Respiration



Respiration

- Respiration is special, as it can be controlled consciously
- Especially suited for beginners

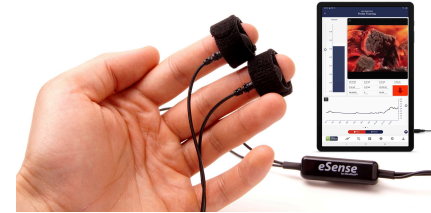


eSense Skin Response



eSense Skin Response

Biofeedback



- The Skin Response is a convenient sensor for measurement of the **skin conductance**
- Measures the skin conductance in **μ Siemens (μ S)** with two electrodes that are attached to the index- and middle fingers.

eSense Skin Response

Skin conductance



- Skin conductance depends directly on the state of **relaxation** or **stress**, making it a commonly used and very precise stress indicator



eSense Skin Response



Details

- Measuring of the skin conductance from 0-100 μ S
- Sampling frequency 1-10 Hz (adjustable)
- Resolution: **18bit**, rounded to 2 decimal places, not rounded for export

Types of electrodes



Velcro electrodes



Gel electrodes (disposable)



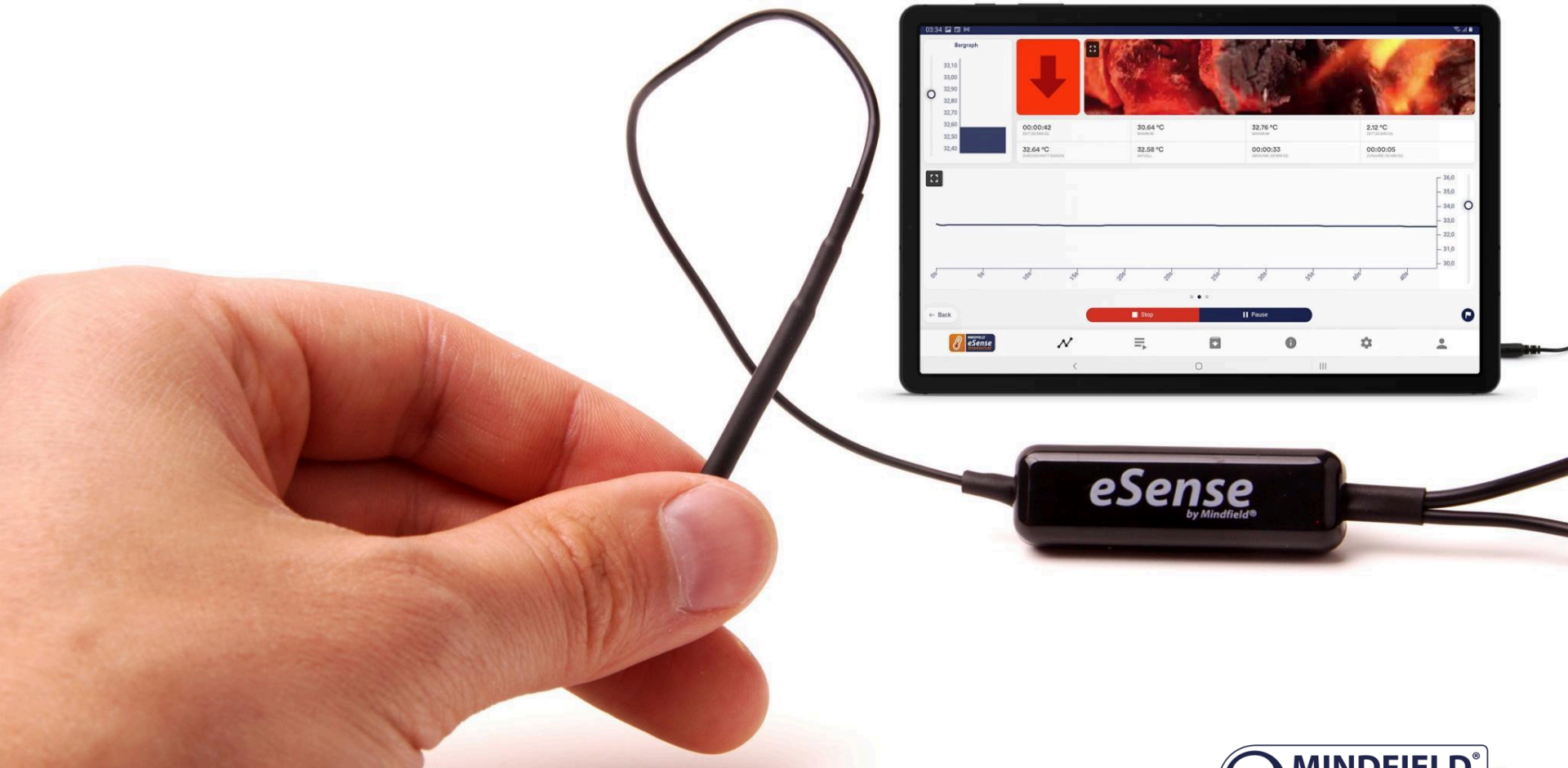
Finger clips (without gel)



EDA gel electrodes (reusable)



eSense Temperature





eSense Temperature

Biofeedback



- The eSense Temperature is a convenient sensor for measurement of the **skin temperature**
- The skin temperature is connected to our **stress level**: When we are stressed, we tend to have cold hands



eSense Temperature

Skin Temperature



- Voluntarily increasing the skin temperature in your fingers, thus increasing your peripheral blood circulation, is leading to **relaxation and stress reduction**



eSense Temperature

Details



- Sampling frequency 10 Hz (adjustable)
- Resolution: **18bit**, rounded to 2 decimal places, not rounded for export

Options of fixation



Leukosilk (medical tape)



Holding



Fingerclip



eSense Muscle



eSense Muscle

Biofeedback



- The Mindfield eSense Pulse is a convenient sensor for measurement of the **muscle activity**
- Measures the muscle activity, depending on the version, either via **1 channel** or via **2 channels**

Muscle activity



- **Voluntary controls** as well as **involuntary reactions** can be measured, which allows conclusions to be drawn about the **general psychophysiological tension**



eSense Muscle



Details

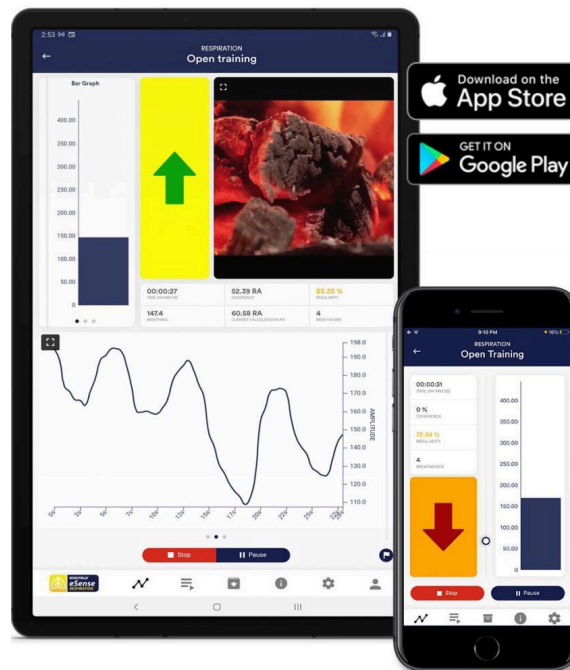
- 2 bipolar EMG inputs (CH1 +, CH1-, CH2 +, CH2-), 1 x analog ground
- Bluetooth 5.0 transmission to PC or smartphone / tablet (Android and iOS)

eSense Universal App

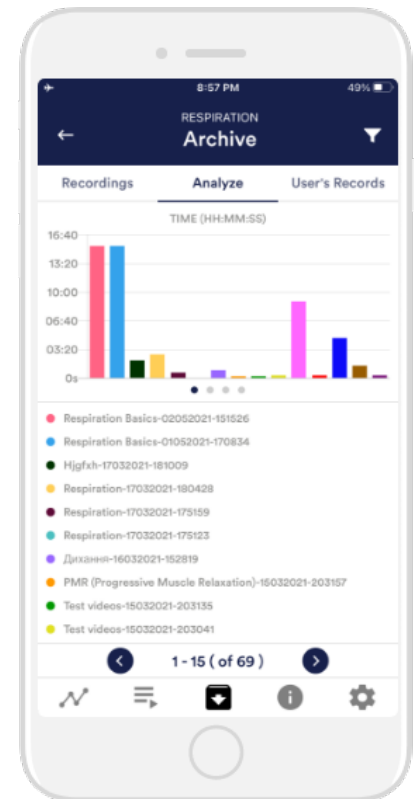
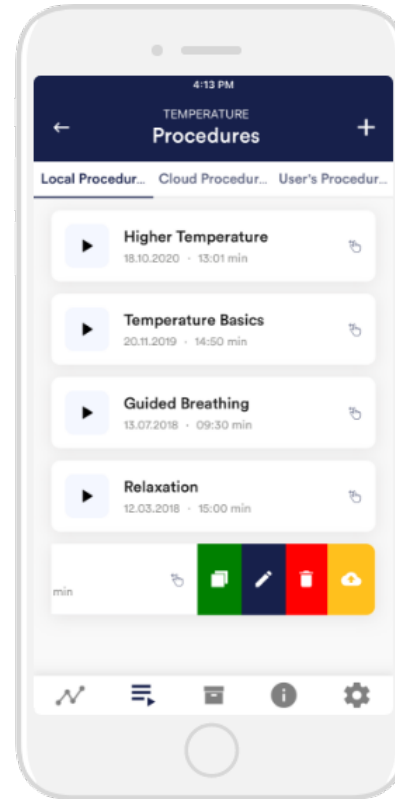
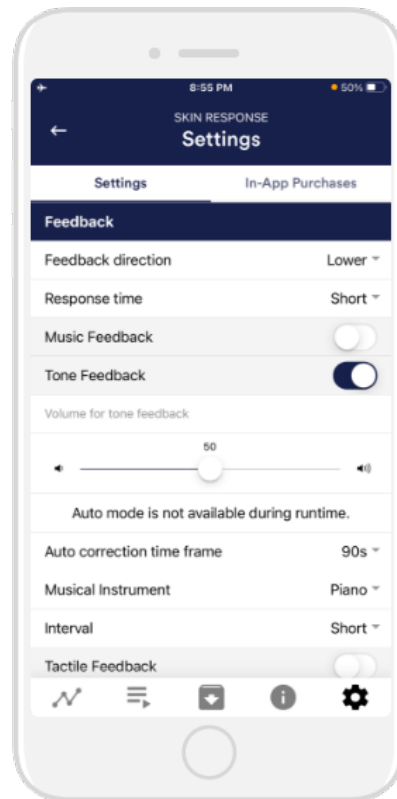
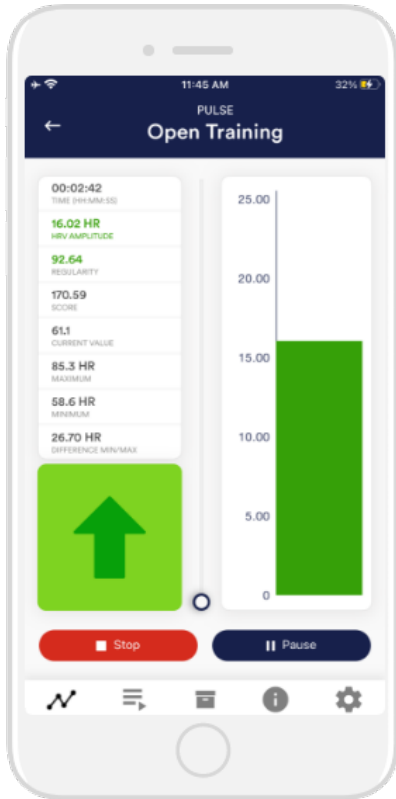


eSense Universal App

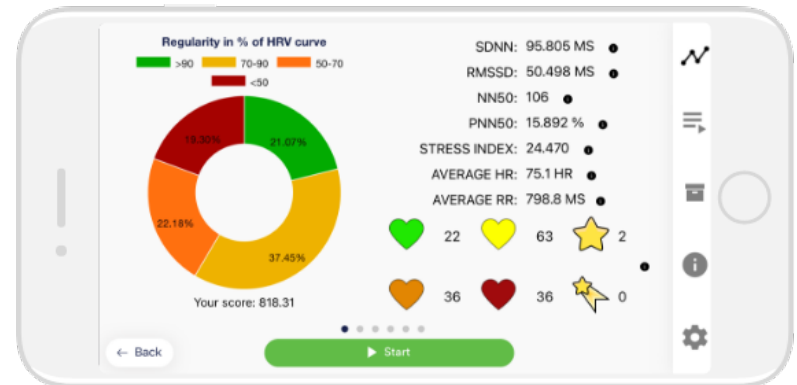
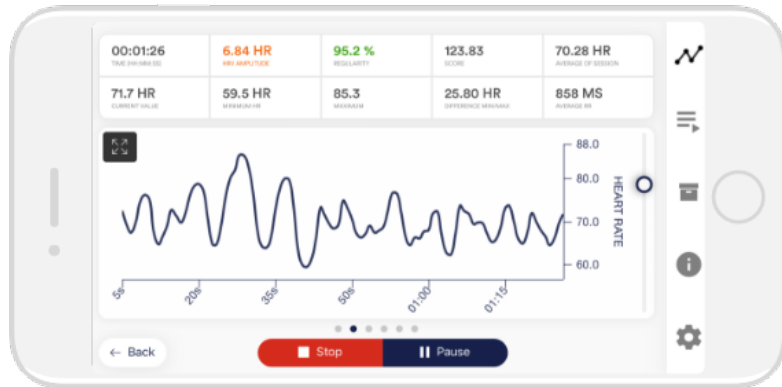
For Smartphones und Tablets



eSense Universal App



eSense Universal App



eSense Universal App



What is your position?

Electrode location:

How do you feel?

Your notes:

eSense Universal App

Details

- For all 5 eSense-Sensors
- For common iOS-devices (from iOS 12.5) and common Android-devices (from Android 7.0)
- For free
- Continuous development

eSense Universal App

Procedures

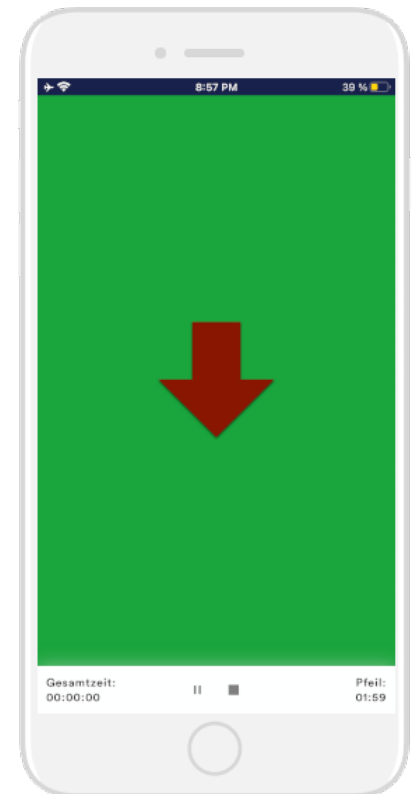
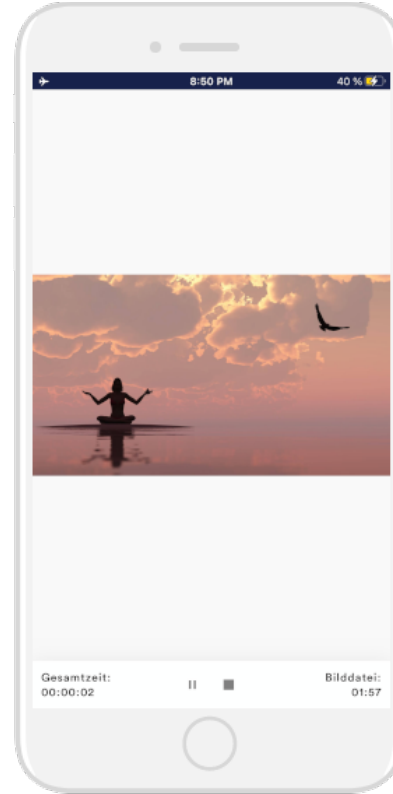
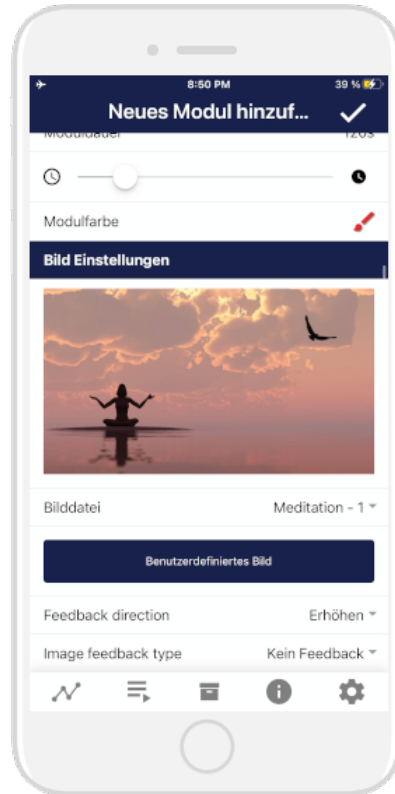
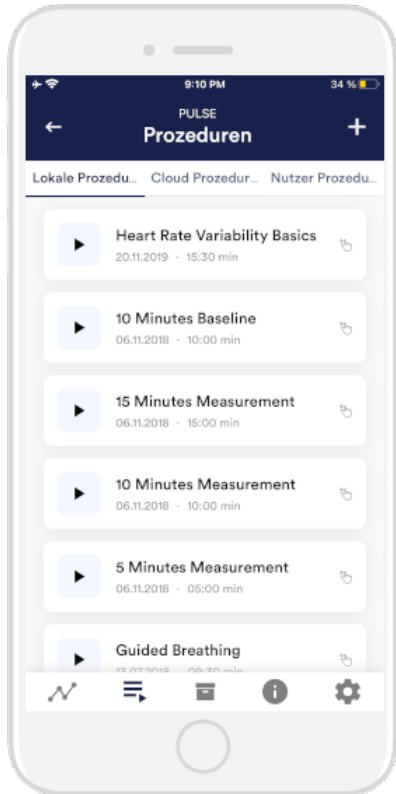
- Procedure consists of several assembled modules
- Modules can be assembled in any length to a fixed procedure

eSense Universal App

Procedures

- Guidance on relaxation, stress test, defined biofeedback training session or tasks for research purposes possible
- Summary after completion of procedure

eSense Universal App



eSense Universal App

Biofeedback-Snake

- Easier representation via colored symbols
- Can be influenced in real time
- Amount of symbols exportable

eSense Universal App

Biofeedback-Snake



eSense Universal App

Account und Cloud

- Ability to create your own account
- Basic and Premium Plan
- Access measurements from anywhere
- Share measurements with other users

eSense Universal App

Export of the data

- Export of data from the app as CSV-file or PDF-file
- Further analysis with e.g. Microsoft Excel™ oder Google Tabellen™ possible
- eSense Pulse: Analysis with Kubios Premium

eSense Universal App

SDK (Software Development Kit)

- For developing of own apps on iOS, Android and Ionic 3/4 with Cordova plugins for the eSense's
- SDK includes demo app to sample the measured values

eSense Universal App

SDK (Software Development Kit)

- May be used indefinitely for commercial and non-commercial projects
- Available in the Mindfield Shop (399€)

eSense Universal App

eSense Web App (www.esense.live)



eSense Universal App

eSense Web App (www.esense.live)

- Streaming eSense data via the eSense app to a PC
- View measurements of several and different eSenses simultaneously and in real time

eSense Universal App

eSense Web App (www.esense.live)

- Several measurements can be observed and supervised by a trainer at the same time
- Particularly suitable with the eSense Muscle

eSense Universal App

OSC-Transfer

- "Open Sound Control", open-source network protocol
- Data transmission of several eSenses in real time
- Android, iOS, Java, Javascript, C++, Python etc.

Order your eSense

Get your eSense today in our shop:

- <https://mindfield-shop.com/en/esense-skin-response-bundle/>
- <https://mindfield-shop.com/en/esense-temperature-set/>
- <https://mindfield-shop.com/en/esense-pulse/>
- <https://mindfield-shop.com/en/esense-skin-response-respiration-set/>
- <https://mindfield-shop.com/en/esense-muscle/>