

# Surface-compliant pressure sensors

pliance®

*Accurate surface pressure analysis*

**pliance®** enables the measurement of force and **pressure** distribution between **3D-deformed interfaces**.

Utilize pliance to analyse pressure on **seats, saddles, mattresses**, and any other soft or hard object.

## pliance® key features:

- measure surface pressure with thin, elastic, highly compliant matrix sensors
- optimize ergonomics of your product by analyzing the pressure distribution
- identify pressure peaks caused by your product to adapt your design
- monitor movement and dynamic pressure changes in realtime
- synchronize any motion capture system



## Technical information

Rechargeable and extendable battery

Max number of sensors:  
2048 (2 x 32 x 32)

54 gr ultra small  
electronics

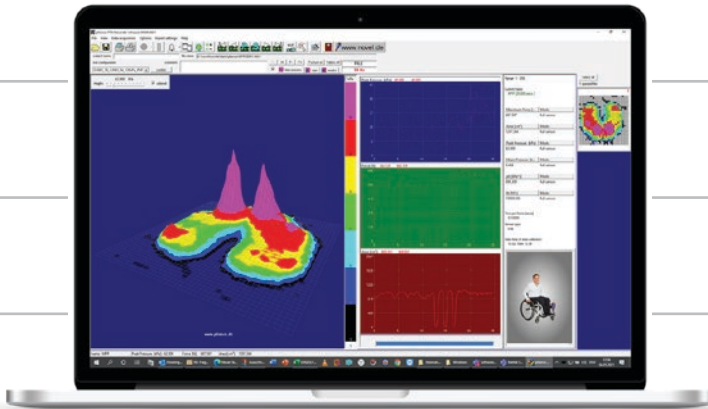


## pliance® software features

Display of  
calibrated  
pressure data

Up to 16 user  
defined areas  
of interest

Peak pressure  
over time



Full access to  
raw data

Force over  
time

Simultaneous  
video recording



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App Store



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### pliance offers over 100 different sensors for even more applications.

The system can be used for medical applications, research and development applications, robotics, industry, etc.

Some common examples of sensors are:

Application	Sensortype	Specifications
textile industry, medicine, etc. e.g. garment assessment e.g. development of wearable products	single sensors	<ul style="list-style-type: none"><li>- enhanced flexibility,</li><li>- high friction cover,</li><li>- integrated fixation mechanism,</li><li>- low pressure optimized</li><li>- reduced influence on measurement</li></ul>
R&D, automotive, biomechanics e.g. soft surface pressure evaluation e.g. pressure analysis for process evaluation	regular scale sensors, multi-purpose sensors	<ul style="list-style-type: none"><li>- rectangular shape,</li><li>- increased robustness or precision</li><li>- 16 x 16 or 32 x 32 Sensor resolution,</li></ul>
ergonomics, medicine, etc. e.g. bed mattress optimization e.g. car seat development e.g. office chair design	large scale sensors, bed sensors, seat sensors	<ul style="list-style-type: none"><li>- covers large areas up to 200 x 100 cm,</li><li>- up to 64 x 32 sensor resolution</li></ul>
R&D, medicine, etc. e.g. robotics control e.g. prosthesis optimization e.g. increase added value of product	embeddable sensors	<ul style="list-style-type: none"><li>- decreased thickness and</li><li>- optimized robustness</li></ul>
R&D, medicine, etc. e.g. helmet optimization e.g. chemical process evaluation e.g. neurological analysis during precision tasks	custom sensors	<ul style="list-style-type: none"><li>- customized shape and</li></ul>

## buttonsens®

*Quantifying fingertip forces*

**buttonsens®** enables the quantitative analysis of **finger forces** and **dexterity**.

The textile sensor can be utilized to **detect forces** when pushing a **button** or any other finger-object interaction.

## loadpad®

*Unobtrusive low pressure sensing*

**loadpad®** enables the effortless measurement of forces on contact areas and interfaces.

Utilize the mobile, wireless and versatile sensors to **analyze contact forces** between objects accurately and reliably.

## loadsol®

*Truly wireless load measurement*

**loadsol®** enables truly wireless in-shoe force measurement **now in any environment** and with **any movement**.

Capture the interaction between foot and ground **accurately, effortlessly**, and with **flexibility**.

## emed®

*Accurate & reliable foot analysis*

**emed®** enables the analysis of the barefoot at highest quality level.

Easily scan the **pressure distribution** and get a reliable and accurate **analysis of the foot function**.

## pedar®

*Leading system for in-shoe measurement*

**pedar®** enables the analysis of the **interaction between the foot and the shoe** at highest quality and precision levels.

Use the system for **in-shoe pedography** and collect reliable pressure and load distribution data.

## texsens®

*Unobtrusive low pressure sensing*

**texsens®** enables the analysis of local pressures between soft interfaces (e.g. between skin & textiles).

Use texsens to precisely quantify pressure and **optimize your wearable products** or **garmets**.