

# A complete range of physiological sensors

Get the full picture on your client's physiology with a complete range of physiological sensors. Our compact and non-invasive sensors are precisely engineered to pick up the cleanest signals possible.



## Autonomic nervous system

- **Skin Conductance** measures changes in electrical conductivity in fingers or toes and is an important parameter of stress.
- **Temperature** measures changes in vasoconstriction in the peripheral circulation. As stress levels increase, hand temperature decreases.



## Central nervous system

- **Electroencephalography (EEG)** detects changes in brainwave activity related to shifting mental states. Monitor consciousness as it goes from attention and focus to relaxation and drowsiness.
- **Passive Infrared (pIR)** picks up shifts in forehead temperature caused by increases or decreases in vascular flow in the frontal lobes.



# Infiniti

## The Future of Psychophysiology and physiological data acquisition



## Cardiovascular & Respiratory systems

- **Electrocardiography (EKG)** detects the electrical activity of the heart and is used to calculate heart rate and heart rate variability (**HRV**)
- **Blood volume pulse (BVP)** detects the rush of blood that is caused by each heartbeat from a finger tip, and provides HR and BVP. It is also a useful measure of stressed related vasoconstriction
- **Respiration** is picked up from a chest or abdominal strap which measures the expansion and contraction of the rib cage at each breath.



## Musculoskeletal system

- **Surface electromyography (SEMG)** is used for muscle rehabilitation, relaxation, sports medicine, training & peak performance.
- **Ergonomic** sensors, like the bend sensor and the goniometer adapter, can be used to measure joint movement, including flexion/extension and lateral torsion.

# A range of devices

for all budgets

## Scalable solutions with unbeatable features

### 2, 5, 8 or 10 sensor inputs

The number of sensor inputs defines how many physiological signals you can record at the same time.

### Wired or wireless connection

While a wired connection to the computer provides the most reliable data flow, the optional Bluetooth module cuts the tether and gives your subject maximum freedom of movement.

### Optimal sampling rates

Capture physiological data with optimal resolution and minimal data file size with a choice of either 256 or 2048 samples/second.

### Designed with safety in mind

Our battery operated encoders use sensor connectors with no exposed metal to eliminate the risk of accidental contact with electrical sources. The wired connection uses optic fibre to maximize electrical insulation between subject and computer.

### Compact Flash Option

The ability to save data to a Compact Flash memory card is crucial in extreme situations where a link to a computer is not possible.

#### FlexComp Infiniti



The FlexComp Infiniti is our top-of-the-line encoder. It provides 10 sensor inputs and offers an option for high speed sampling (2048 s/s) on all 10 inputs. It is ideal for research situations where synchronizing multiple high-resolution data channels is required.

#### ProComp Infiniti



The FlexComp Infiniti is our top-of-the-line encoder. It provides 10 sensor inputs and offers an option for high speed sampling (2048 s/s) on all 10 inputs. It is ideal for research situations where synchronizing multiple high-resolution data channels is required.

The ProComp Infiniti is the choice for clinicians and researchers who want to measure the effects of stress and teach self-regulation with classic biofeedback or neurofeedback protocols. It offers 2 high-speed inputs for high resolution electromyography (EMG), electrocardiography (EKG) and 6 slower inputs for physiological measures, such as electroencephalography (EEG), skin conductance, temperature, heart rate and respiration rate.



#### 10 CH



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#### 8CH



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#### 2CH



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#### ProComp 2



The FlexComp Infiniti is our top-of-the-line encoder. It provides 10 sensor inputs and offers an option for high speed sampling (2048 s/s) on all 10 inputs. It is ideal for research situations where synchronizing multiple high-resolution data channels is required.

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#### 5CH



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#### ProComp 5



The FlexComp Infiniti is our top-of-the-line encoder. It provides 10 sensor inputs and offers an option for high speed sampling (2048 s/s) on all 10 inputs. It is ideal for research situations where synchronizing multiple high-resolution data channels is required.

The ProComp Infiniti is the choice for clinicians and researchers who want to measure the effects of stress and teach self-regulation with classic biofeedback or neurofeedback protocols. It offers 2 high-speed inputs for high resolution electromyography (EMG), electrocardiography (EKG) and 6 slower inputs for physiological measures, such as electroencephalography (EEG), skin conductance, temperature, heart rate and respiration rate.



The ProComp™ is our entry-level encoder and is ideal for clinicians on a tight budget. The ProComp 2's affordability and ease of use make it the ideal device for clinicians who want to start working with biofeedback but have little experience with physiological monitoring equipment.

Beginner neurofeedback practitioners will appreciate the integrated single channel EEG sensor. ProComp2 allows the use of any two physiological sensors.



Clinicians with simpler needs will appreciate the cost-effective ProComp 5. It still offers 2 high-speed inputs for EMG and EKG but provides only 3 inputs for other physiological measures.