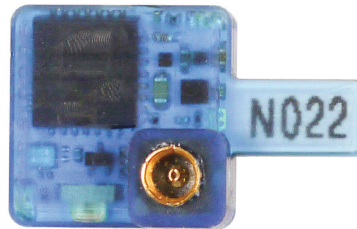


W2100-HS4 Headstage

W2100 Headstage for Use with the W2100-System

Advantages

- Small-sized headstage with integrated A/D converter and LED lights for video tracking.
- The W2100-System converts the recorded signals into digital data already on the headstage.
- The signal-to-noise ratio is excellent and most important, independent from the distance between sender and receiver.



W2100-HS4 top side

Please use the connector for the storage battery in the lower right for orientation of the headstage.

Applications

The W2100 headstage is the ideal solution for the measurement of spikes, LFP, EEG, ECG, EMG, and ECoG. Additional inputs to the interface board allow the synchronization of the data with external devices.

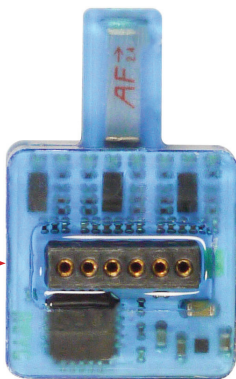
W2100-B-30mAh-BB

Standard battery for the W2100-HS4. Please connect the battery board to the headstage.



W2100-HS4 Headstage

Technical Specifications



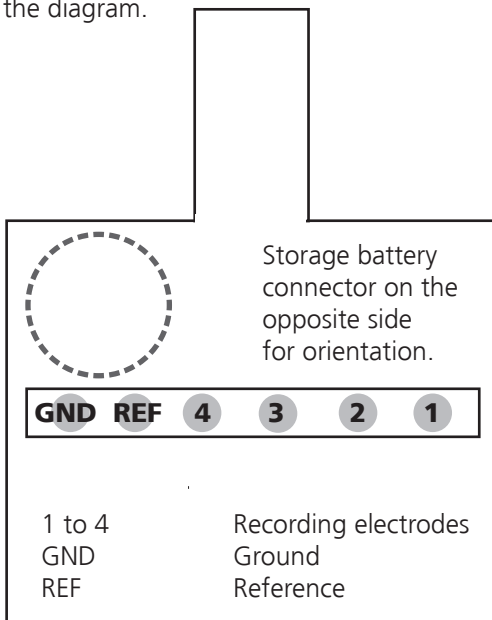
W2100-HS4 bottom side

Connector for the electrode probe or for the ME/W-Signal Generator.

Important: To handle the headstage, please touch the body, but not the antenna.

W2100-HS4 with Single Row Connector

Diagram of the bottom side with pin layout. Please orientate the headstage as shown in the diagram.



Connector for this Headstage single row precession socket

(1.27 mm, round pin)

Preci-Dip 851-87-006-10-001101

The connector mates with a standard single row 1.27 mm pin connectors such as: Preci-Dip 850-10-006-10-001101

Technical Specifications

| | |
|------------------------------------|--------------------------------------|
| Number of recording channels | 4 |
| Weight (without battery) | ± 1.8 g |
| Dimensions (W x D x H) w/o antenna | 12.5 mm x 12.5 mm x 5.5 mm |
| Distance for wireless link | 5 m and more under normal conditions |

Amplifier

Bandwidth: To avoid aliasing effects, the low pass depends on the sampling frequency:

| | | | | |
|-----------------|--------------------------|---------|---------|---------------|
| High pass | 1 Hz (0.1 Hz on request) | | | |
| Low pass | 400 Hz | 800 Hz | 1 kHz | 5 kHz |
| @ Sampling rate | @ 1 kHz | @ 2 kHz | @ 5 kHz | @ 10 - 40 kHz |

| | |
|---------------------|-------------------------|
| Gain | 101 |
| Input impedance | 1 GΩ 10 pF |
| Resolution | 16 bit |
| Input voltage range | ± 12.4 mV |
| Input noise | < 1.9 μV _{RMS} |

Sampling rate (max.) in kHz

| | | |
|-----------------------|-----------------------------------|----------|
| | Number of channels simultaneously | |
| | 2 | 4 |
| Single Headstage Mode | 40 | 25 |
| Multi Headstage Mode | 10 | 10 |

Software

| | |
|--|--|
| Operating system | Windows ® 10, 8.1 (64 bit) |
| Data acquisition, analysis and export software | Multi Channel Suite Version 1.5.1 and higher |