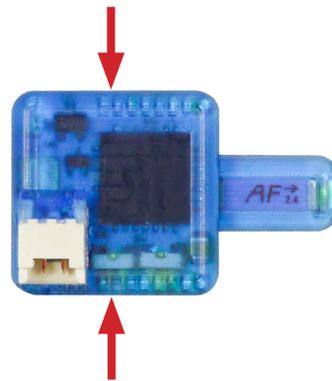


W4-HS Headstage

4-Channel Wireless Headstage for Use with the Wireless-System



W4-HS top side:
Connector for the battery

Important: Please handle the headstage with great care!
Do not touch the antenna, but the body of the headstage.

Applications

The W4 headstage is the ideal solution for spikes, LFP, EEG, ECG, EMG, and ECoG. Additional inputs to the interface board allow the synchronization of the data with external devices.

Technical Specifications

Number of recording channels	4
Weight (without battery)	+/- 2.2 g
Dimensions (W x D x H)	13 x 13 x 5 mm
Distance for wireless link	5 m and more under normal conditions

Amplifier

Gain	101
Bandwidth	1 Hz to 5 kHz (0.1 Hz on request)
Input impedance	1 GΩ 10 pF
Resolution	16 bit
Input voltage range	+/- 12.4 mV
Input noise	< 1.9 μV _{RMS}

Sampling rate

4 channels simultaneously	20 kHz
2 channels simultaneously	40 kHz

Software

Operating system	Windows ® 10, 8.1, 7 (64 bit)
Data acquisition and analysis software	Multi Channel Suite Version 1.5.1 and higher MC_Rack Version 4.6.2 and higher

Advantages

- Small-sized headstage with integrated A/D converter.
- The Wireless-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.
- The signal amplitude is independent of the distance, too, and the data arrives safely and completely at the receiver for further analysis.

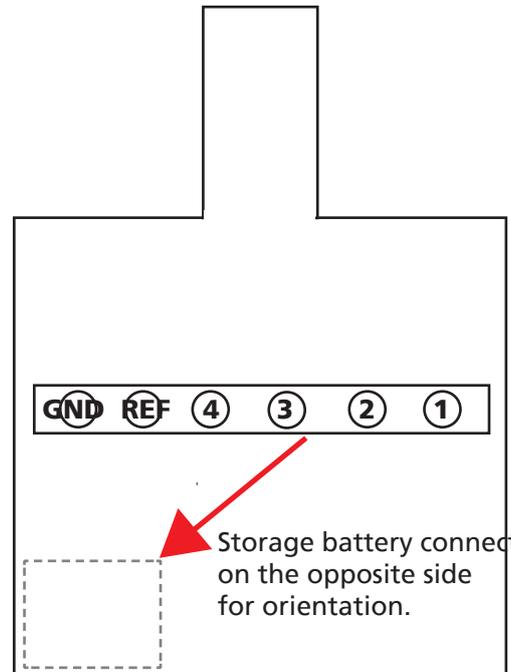
W4-HS Headstage

Layout



W4 Headstage with Single Row Connector

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



Storage battery connector on the opposite side for orientation.

Pin Layout of the single row precession socket (1.27 mm, round pins)

- Channel 1
- Channel 2
- Channel 3
- Channel 4
- REF (Reference)
- GND (Ground)

Wireless-B-100mAh

Standard battery for the W4-HS. Please connect the battery via cable to the headstage. The recording time with a 100 mAh battery at maximal sampling rate on all four channels is 3.2 hours.



W4-HS bottom side:
Connector for the electrode probe or for the ME/W-Signal generator.

Connector for W4 Headstage with single row precession socket (1.27 mm, round pin).

The connector mates with a standard single row 1.27 mm pin connector such as: preci-dip 850-10-006-10-001101