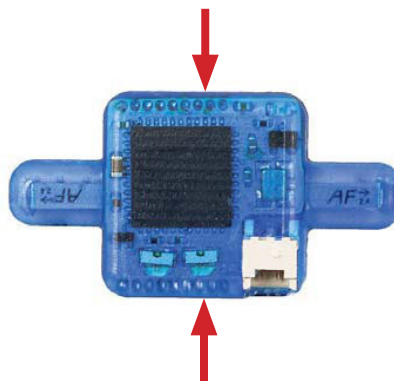


W8-HS Headstage

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



W8-HS top side:
Connector for the battery

Applications

The W8 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.

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

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.

Technical Specifications

Number of recording channels	8
Weight (without battery)	+/- 2.9 g
Dimensions (W x D x H)	16 x 16 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	
8 channels simultaneously	20 kHz
4 channels simultaneously	40 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

W8-HS Headstage

Layout for the W8-HS Headstage with Single Row Connector

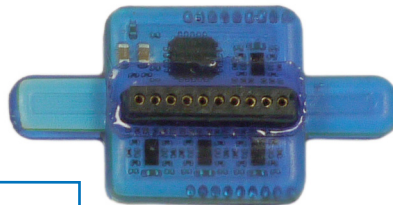
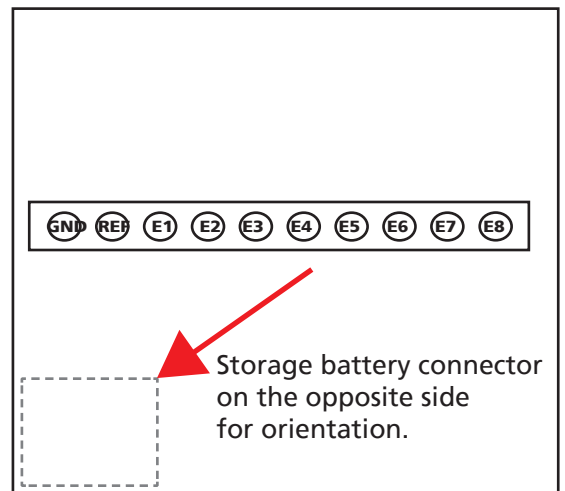


Wireless-B-100mAh

Standard battery for the W8-HS. Please connect the battery via cable to the headstage. The recording time with a 100 mAh battery at maximal sampling rate on all eight channels is 2 hours.

W8 Headstage with Single Row Connector

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



W8-HS bottom side:
Connector for the electrode probe or for the ME/W-Signal generator.

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

GND	Ground
REF	Reference
E1	Channel 1
E2	Channel 2
E3	Channel 3
E4	Channel 4
E5	Channel 5
E6	Channel 6
E7	Channel 7
E8	Channel 8

Connector for W8 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

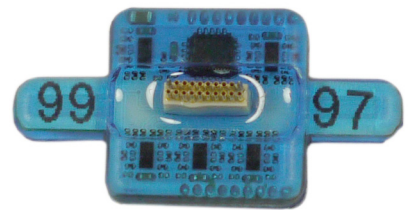
W8-HS Headstage

Layout for the W8-HS Headstage with Omnetics Connector

Connector for W8 Headstage with Omnetics Connector.

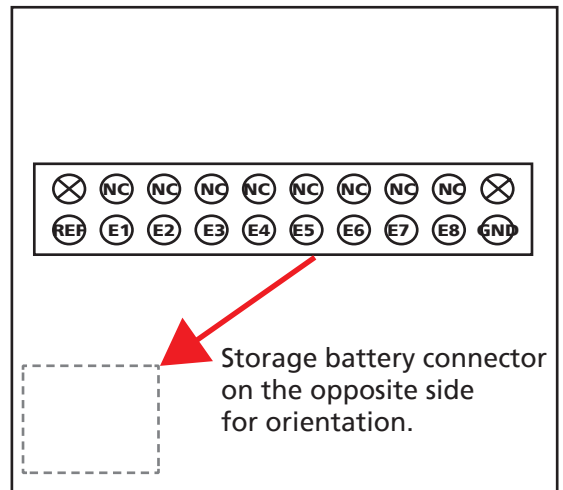
The Omnetics connector mates with standard pin connector such as:
 Through-Hole:
 A79038-001 (NPD-18-DD-GS)
 Horizontal Surface Mount:
 A79040-001 (NPD-18-AA-GS)
 Vertical Surface Mount:
 A79042-001 (NPD-18-VV-GS)
 Cable (18.0" 34 AWG lead-wire):
 A79044-001 (NPD-18-WD-18.0-C-GS)

W8-HS bottom side:
 Connector for the electrode probe or for the MEW-Signal generator.



W8 Headstage with Omnetics Connector

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



Wireless-B-100mAh

Standard battery for the W8-HS. Please connect the battery via cable to the headstage. The recording time with a 100 mAh battery at maximal sampling rate on all eight channels is 2 hours.



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

	Guide post	REF	Reference
NC	not connected	E1	Channel 1
NC	not connected	E2	Channel 2
NC	not connected	E3	Channel 3
NC	not connected	E4	Channel 4
NC	not connected	E5	Channel 5
NC	not connected	E6	Channel 6
NC	not connected	E7	Channel 7
NC	not connected	E8	Channel 8
	Guide post	GND	Ground