

ME2100-HS32-S 32-Channel Headstage for ME2100-System

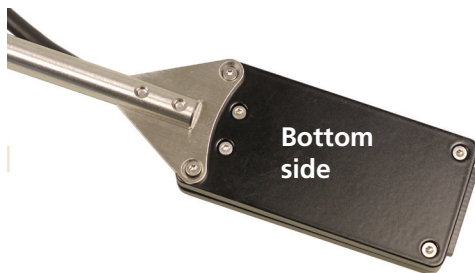
Pin Layout of the 32-Channel Headstage

ME2100-HS32-S Headstage Input Connector

| | |
|-------------|----------------------------|
| Pin 1 | GND (Ground) |
| Pin 2 | Reference input |
| Pin 3 to 34 | Recording channels 1 to 32 |
| Pin 35 | Reference input |
| Pin 36 | GND (Ground) |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 31 | 33 | 35 |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 |

Please note that the side with no screws is considered to be the top side of the ME2100-HS32-S. The figure shows the pin layout viewed from the front, with the case screws down.



Application

Use the headstage of the ME2100-System for anesthetized or head fixed animals.

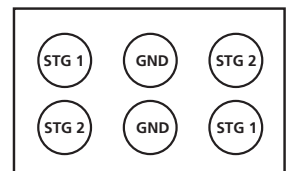
The ME2100-HS32-S headstage can be used with the flexible microelectrode array EcoFlexMEA36 from Multi Channel Systems MCS GmbH. For connecting FlexMEAs (FlexMEA36 or FlexMEA72) or NeuroNexus probes special adapters are available, for example, ADPT-FM-32, ADPT-FM-72, ADPT-NN-32 or ADPT-NN-64-ME2100.

The 32-channel headstage is connected to the ME2100-System via MCS Signal Collector and MCS Interface Board.



External Stimulation

Send two independent stimulation patterns to one or two external stimulation electrode(s). Please use the output connector on the side panel of the ME2100-HS32-S. See the pin layout on the scheme.



Adapter: Please see datasheet ME2100-HS32-M.

October 2021

ME2100-HS32-S 32-Channel Headstage for ME2100-System

Technical Specifications

ME2100-HS32-S

Type

Operating temperature
Storage temperature
Relative humidity

0 ° to 50 °C
0 ° to 50 °C
10 % to 85 % non-condensing

Dimensions (W x D x H)

35 mm x 72.5 mm x 8 mm

Length of the cable

Optional: 3 m, 5 m or 10 m

Weight w/o cable

30 g

Maximum tensile strength of the cable

20 N

Input connector type

Dual-row precision socket, 50 mil (1.27 mm) grid pattern,
0.35 ± 0.45 mm round pins

Integrated Amplifier

Number of analog recording channels

32

Data resolution

24 bit

Bandwidth

DC to 10 kHz, software selectable

Signal input voltage range

± 240 mV

Input impedance

470 MΩ || 10 pF

Input noise

< 2.4 μV_{RMS} (1 Hz to 3.5 kHz, inputs connected to ground)

Sampling frequency per channel

up to 50 kHz, software controlled

Integrated Stimulus Generators

Output voltage

± 10 V @ ± 20 mA max. compliance current

Output current

± 1.5 mA @ ± 16 V compliance voltage

Resolution

16 bit

Stimulation pattern

User customizable patterns

Number of stimulation channels

32 (each channel can be used as stimulation channel)

2 channels can be used for external stimulation

Number of reference electrodes

4 predefined reference electrodes

External Stimulation

1 Output connector

6-Pin connector for 2 independent stimulation patterns
preci-dip series 853, 1.27 mm grid, 0.44 mm round pins

October 2021