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)

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 sheme.

Adapter: Please see datasheet ME2100-HS32-M.

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Technical Specifications

**ME2100-HS32-S**

- Operating temperature: 0 °C to 50 °C
- Storage temperature: 0 °C to 50 °C
- Relative humidity: 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: 50 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: ± 500 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)
- Number of reference electrodes: 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