

## CMOS-MEA5000-System

### CMOS: Complementary Metal Oxide Semiconductor Technology

#### Technical Specifications

##### General Characteristics

Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 50 °C
Relative humidity	10 % to 85 %, non-condensing

##### Headstage

Dimensions (W x D x H)	256 mm x 230 mm x 25 mm
Weight	1407 g

##### Integrated Amplifier

Number of recording channels	4225
Data resolution	14 bit
Bandwidth	DC to 12.5 kHz, software controlled
Sampling frequency per channel	25 kHz or lower, software controlled

##### Integrated Stimulus Generator

Number of stimulation channels	1024
Output voltage range	± 3.4 V, software controlled 0 to 3.4 V (The stimulus amplitude depends on the voltage slope)
Output voltage resolution	1 mV
Time resolution	10 µs
Independent stimulation patterns	3, stimulation sites freely selectable

##### Interface Board „IFB-C Multiboot“ and Connectors

Dimensions (W x D x H)	250 mm x 83 mm x 25 mm
Weight	300 g

##### Front Panel

2 Sync In and Sync Out	Connectors for IFB-C connection in a chain Lemo connector, EPL 00250 NTN
1 8-Channel Analog In connector	10-pin connector DIL10Header-100mil
2 Analog In connectors	Lemo connector, EPL 00250 NTN
2 LEDs	LEDs for link status 1 and 2
4 Digital inputs	Lemo connector, EPL 00250 NTN
4 Digital outputs	Lemo connector, EPL 00250 NTN
1 Ground	Common jack 4 mm, banana plug

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#### Rear Panel

I / O  
 Power supply  
 1 Ground  
 1 16 Bit Digital In / Out  
 2 Auxiliary channels  
 1 Audio output  
 1 Digital signal processor DSP port  
 Not in use in CMOS-MEA5000-Systems!  
 2 Connectors for interface board to headstage  
 2 USB-C ports  
 Signal input range for analog channels  
 Gain for analog channels

On / Off switch  
 MPU 30, PWR DC 0.85 x 2.75 mm  
 Common jack 4 mm, banana plug  
 68-pin connector, Honda-PCS-XE68LFD  
 Lemo connector, EPL 00250 NTN  
 Stereo jack 3.5 mm, PRA.00.250.CTAC29  
 14-pin connector, DIL14Header-100mil-angeled  
 External power over iX-industrial cable, type B  
 USB-C A and USB-C B  
 $\pm 2500$  mV  
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#### Power Supply Unit

Voltage range 100 - 240 VAC  
 Output voltage 24 VDC  
 Frequency 50 - 60 Hz  
 Max. power 60 W  
 Mark of conformity CE  
 European standard EN61010-1

#### Software

Operating system Strongly recommended: MCS specified PC  
 Microsoft Windows 10 and 8.1 (64 bit),  
 English and German version supported  
 Data acquisition: CMOS-MEA-Control Version 2.5.0 and higher  
 Analysis software: CMOS-MEA-Tools Version 2.5.0 and higher  
 Data export: Multi Channel DataManager Version 1.13.3 and higher