

MEA2100-Beta-Screen-System



Technical Specifications

General Characteristics	
Operating temperature	10 °C to 50 °C
Storage temperature	0 °C to 70 °C
Relative humidity	10 % to 85 %, non-condensing
Beta-Screen Headstage	
Dimensions (W x D x H)	250 mm x 83 mm x 25 mm
Weight with cable, w/o MEA chamber	444 g
Weight with cable and MEA chamber	484 g
Length of cable	3 m
Integrated Amplifier	
Number of analog recording channels	5
Bandwidth	DC to 10 kHz, software controlled
Data resolution	24 bit
Signal input voltage range	± 70 mV
Input impedance	450 MΩ 10 pF
Integrated Heating Element	
Temperature sensor type	Resistive sensor
Accuracy	± 0.1 °C
Signal Collector Unit	
Signal Collector Unit (MCS-SCU)	Up to 2 Signal Collector Units can be connected
Dimension (W x D x H)	250 mm x 83 mm x 25 mm
Weight	300 g
4 Inputs for headstages (HS1 to HS 4)	Lemo connector, EPG.0B.307.HLN
1 Connector with 4 analog outputs for LED driver	Lemo connector, EPG.0B.307.HLN
Voltage output of each analog output	0 - 5 V
1 64-Channel Analog Out connector	68-pin MCS standard connector
Collector unit to interface board connector	External power over serial ATA (eSATAp)

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IFB-C Interface Board	
Dimensions (W x D x H)	250 mm x 83 mm x 25 mm
Signal input voltage range	± 70 mV
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	10-pin connector (2.54 mm grid), dual row standard IDC
Signal input range for analog channels	± 1250 mV
Gain for analog channels	2
2 LEDs	Link status control
4 Digital Inputs	Lemo connector, EPL 00250 NTN
4 Digital Outputs	Lemo connector, EPL 00250 NTN
Ground	Common jack 4 mm, banana plug
Rear Panel	
Switch I/O	On / Off
Power Supply	MPU 30, PWR DC 0.85 x 2.75 mm
1 16 Bit Digital In / Out	Honda-PCS-XE68LFD
2 Auxiliary channels (not in use)	Lemo connector, EPL 00250 NTN
1 Audio output	Stereo jack, 3.4 mm
1 Digital signal processor DSP port (Not in use!)	14-pin connector DIL14Header-100mil-angeled
2 Interface board to SCU connectors	External power over iX industrial standard cable, type B
2 USB-C ports	USB-C cable
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: Microsoft Windows®	Windows 10, 8.1 (32 or 64 bit), English and German version supported
Beta-Screen Experimenter	Version 2.12.0 and higher
Beta-Screen Analyzer	Version 2.13.0 and higher
Multi Channel DataManager	Version 1.6.1 and higher