

LED Stimulator MW96-opto-stim for Multiwell-MEA-Systems

LED Stimulator controlled via Multiwell-Screen Software, can also be used as stand-alone opto Stimulator.

Do not look at the power LED flashes without eye protection!



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This picture shows an active MW96-opto-stim device. The LEDs need to be ordered separately and the wavelength has to be specified. Currently available wavelength are listed below.

Setup

Connect the MW96-opto-stim device to any USB 2.0 or 3.0 connector. Connect the device to a power supply.

The Sync Out port needs to be connected to one of the Digital In ports of the Multiwell-MEA interface board with a Lemo-Lemo cable to be able to record light stimulation time points as triggers in the Multiwell-Screen software.

Optionally connect the Digital In port to trigger the MW96-opto-stim from an external device.



LED Type

The available LEDs are listed below. Please select the desired type.

Red 590 nm (MW LED5 red 590nm)

615 nm (MW LED5 red 615nm)

Blue 428 nm (MW LED5 blue 428nm)

470 nm (MW LED5 blue 470nm)

Green 527 nm (MW LED5 green 527nm)

Other LED types are possible on request, contact support@multichannelsystems.com.

LED Stimulator Setup

Place the MW96-opto-stim device upside down accurately on the 96-well plate in the headstage of the Multiwell-MEA-System, so that the LEDs are exactly over the wells of the 96-well plate.

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Operation of the MW96-opto-stim Device via Multiwell-Screen Software

Applications

The LED Stimulator is the ideal solution for using LED flashes with different intensities and pulse frequencies as a stimulus, for example for optogenetic neuromodulation or retina experiments. LEDs in different wavelengths are provided and have to be ordered separately.



Multiwell-Screen Software

Please control the LED Stimulator device with the Multiwell-Screen software. The software allows to define a stimulation pattern and to activate or deactivate LEDs individually for each well.

Technical Specifications

Operating temperature	0 - 50 °C
Storage temperature	0 - 50 °C
Relative humidity	10 % - 85 %
Dimensions (W x D x H)	170 mm x 108 mm x 26.5 mm
Weight	611 g
USB type C	USB 2.0 or USB 3.0 port
1 x Digital In	Lemo connector EPL.00.250 NTN
1 x Sync Out	Lemo connector EPL.00.250 NTN
Power supply	24 VDC, 2.5 A
Power consumption	n/a
Current resolution	0.01 mA
Max. current	depends on the type of LED
Time resolution	1 ms

