

W2100-opto-LED

1-Channel Light Source for Optogenetic Stimulation and simultaneous Recording

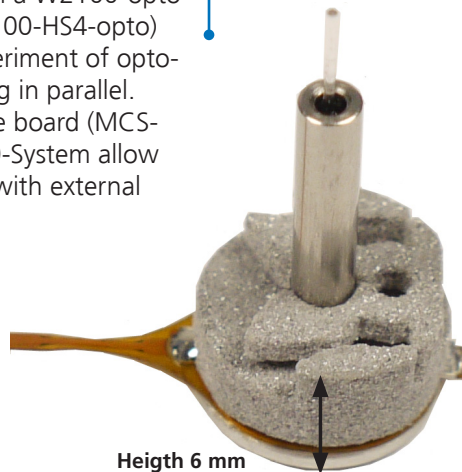
Overview

The W2100-opto-LED device consists of a high power LED, a light guide ferrule holder, a 35 mm flex-cable and a 3-pin connector to connect the W2100-opto-LED to one of the W2100-opto Headstages. The light guide ferrule holder is designed to mount different ferrule diameters to provide a maximum of flexibility of choosing the optimal light guide for your experiment.

(Note: The light guide is not included in the scope of delivery.)

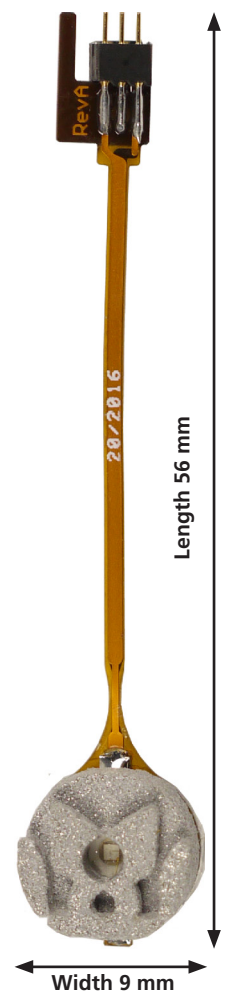
Applications

The W2100-opto-LED along with a W2100-opto headstage (for example the W2100-HS4-opto) are the ideal solution for an experiment of optogenetic stimulation and recording in parallel. Additional inputs to the interface board (MCS-IFB 3.0 Multiboot) of the W2100-System allow the synchronization of the data with external devices.



Multiple Wavelength and Ferrule Diameter Options

Five different wavelength options are available: 455, 470, 525, 587 and 625 nm
Two different ferrule diameter options are available: 1.25 mm and 2.50 mm.
(For custom wavelength or ferrule diameter options please contact sales@multichannelsystems.com)



W2100-opto-LED

Technical Specifications

All light intensity values are measured in mW/mm² @ 700mA. Averages of 100 pulses with 200 ms „ON“ and 800 ms „OFF“.

Wavelength [nm] / Optical Fiber Ø

Type of LED

625	587	525	470	455
LR W5SN-JYKY-1-Z	LY W5SN-KXLX-46-Z	LT W5SN-KYLY-25-Z	LB W5SN-GZJX-35-Z	LD W5SN-1U2V-35-Z

Ferrule: 1.25 mm

0.4 mm (CFML14L05)	66.45	20.69	37.00	64.06	97.49
0.2 mm (CFML12L05)	66.85	19.10	42.97	68.44	76.40

Ferrule: 2.5 mm

0.4 mm (CFM14L05)	65.65	17.91	31.04	62.47	75.60
0.3 mm (CFM13L05)	62.25	16.98	29.00	61.54	79.93
0.2 mm (CFM22L05)	82.76	19.10	36.61	90.72	113.00

Note: Maximum current is 1000 mA for higher light intensities and stimulation pattern with short duty cycles.

Measured with Thorlabs light guides, for more information please visit thorlabs.com.

Warning: Do not overheat the LED! High frequent stimulation with high stimulation current will produce heat!

Technical Specifications

Dimensions (W x H x L)

9 mm x 6 mm x 56 mm

Weight

0.82 g without ferrule

Connector type to the W2100-opto headstage

Mill-Max 1 mm Pitch: 860-10-050-10-002000 + Magnet-cuboid Maqna QA-3x1x1-N45-N)

Diameter of the ferrule holder

1.25 mm or 2.5 mm

Software

Operating system

Windows ® 10, 8.1 (64 bit)

Data acquisition, analysis and export software

Multi Channel Suite Version 2.4.4 and higher



Warning: LED Class 1M: This class is safe for viewing directly with the naked eye, but may be hazardous to view with the aid of optical instruments.