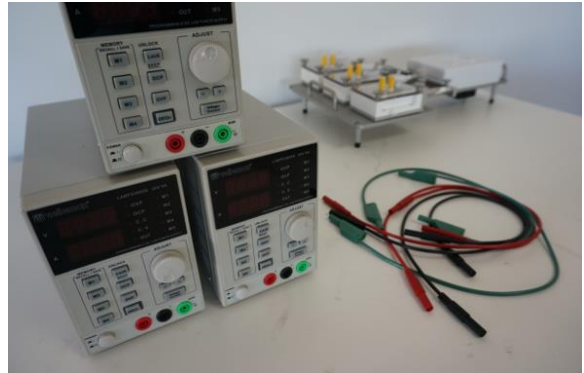


Electrical Stimulation Module

Description

The electrical stimulation module is a configurable system designed to provide electrical stimulation capabilities. It is supplied as an independent module and can be used together with the TEB flow culture bioreactors and the TC-3 mechanical stimulation bioreactor. This module is highly versatile and the components can be customized as a function of your particular experimental demands.

Specific software and hardware have been designed to use the module with the TC-3 bioreactor in order to obtain the synchronized application of mechanical and electrical stimulation.



Applications

- **Electrical stimulation of cell cultures**

Main features

Power sources included in the module allow specifying the voltage to be generated as well as to limit the current which is applied on the sample. Then, such voltage is applied on the samples by means of electrodes.

The electrical stimulation module has been designed accounting for the particular demands of cell culture. All the components that must be introduced in the incubator atmosphere have been designed to resist the conditions of the incubation atmosphere.

The electrical conditions to be applied are controlled through a simple computer interface which is supplied together with the module.

Electrical Stimulation Module

Voltage digital adjustment	Up to 30 [V]
Pulse type	Unipolar
Maximal current value	1 [A]
Pulse duration	3-1000 [ms]
Short circuit and open circuit protection	Yes
Pulse synchronization with mechanical stimulation	Yes
Electrodes	Platinum/Iridium autoclavable electrodes