

PD-RT recording in cell culture room.

Parts:

1 – IV Electrode for recording of transepithelial voltage (V) and current (I): **EL-CSMW-SINGLE**.

The material of all parts (wires, pellet holders, connector) can withstand temperatures of 150° Celsius. The entire electrode can be autoclaved at 150° Celsius. For both I and V recording we use Ag/AgCl sintered pellets, thus obtaining minimal offset voltages. Offset of the electrode can be verified in a cell free well. All recorded data are stored on an SD card of the electronic clamp/amplifier box. The IV electrode displayed below fits in wells of a Costar 24 well plate.



EL-CSMW-SINGLE.

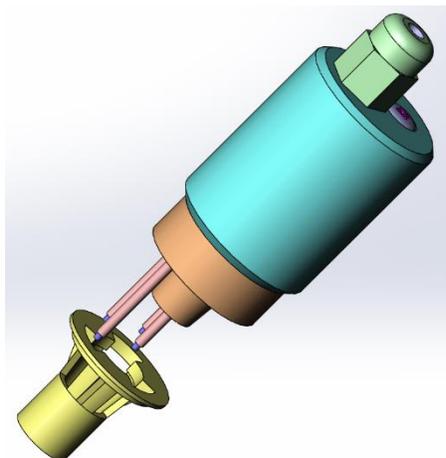
2 – Electronic clamp/amplifier.

The electronic recording system is built around a fast 32 bit microcontroller and a high precision ADC with internal digital filtering circuits. After closing the clamp, the recording of PD and RT are done at a rate of 1Hz. Data are displayed of an RT is recorded with sine wave stimulus of 1 HZ. LCD screen and stored on an SD card. The SC card connector is located in the back.



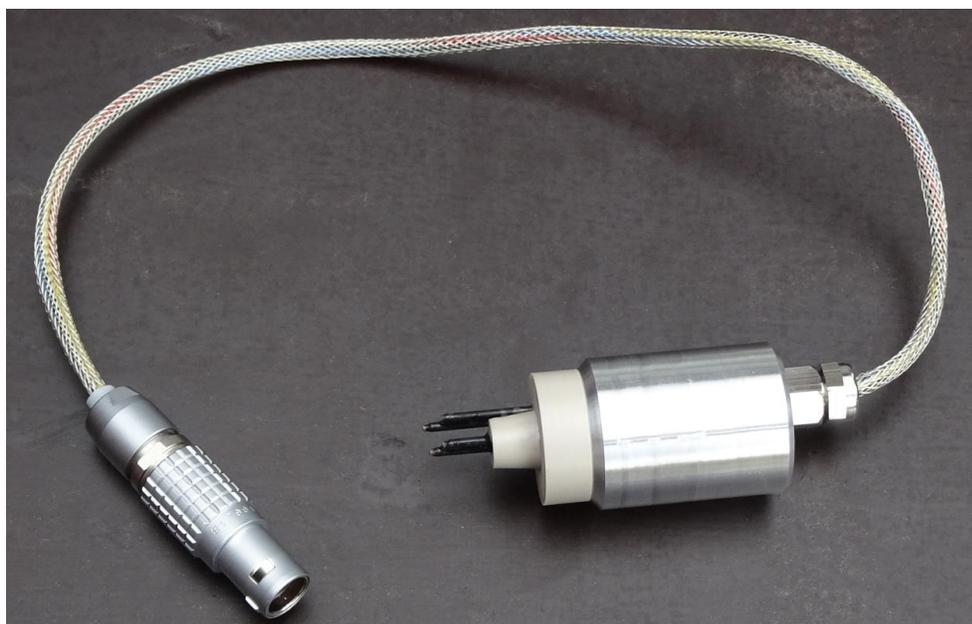
The unit is powered with a power bank which is commercially available (for tablets and mobile phones). Alternatively, power can be obtained from a PC (see switch PC/Local).

3 – IV Electrode unit for individual 6.5mm Costar filters (optional): EL-CSSW-SINGLE.



The conic shape of the upper part of the individual Costar wells is somewhat different from the shape of wells in the 24 well plates. In order to obtain a stable fitting we designed the lower part (in brown) of the IV electrode. The other parts (top, cable, etc...) are the same as those in EL-CSMW-SINGLE.

EL-CSSW-SINGLE can be used with the electronic recording system described above.



Designed by:

- Mechanical parts / electrodes: EP Devices (Belgium)
- Electronics and software: EP Design (Belgium)

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