



External Electrodes  
& Platform

# External Electrodes

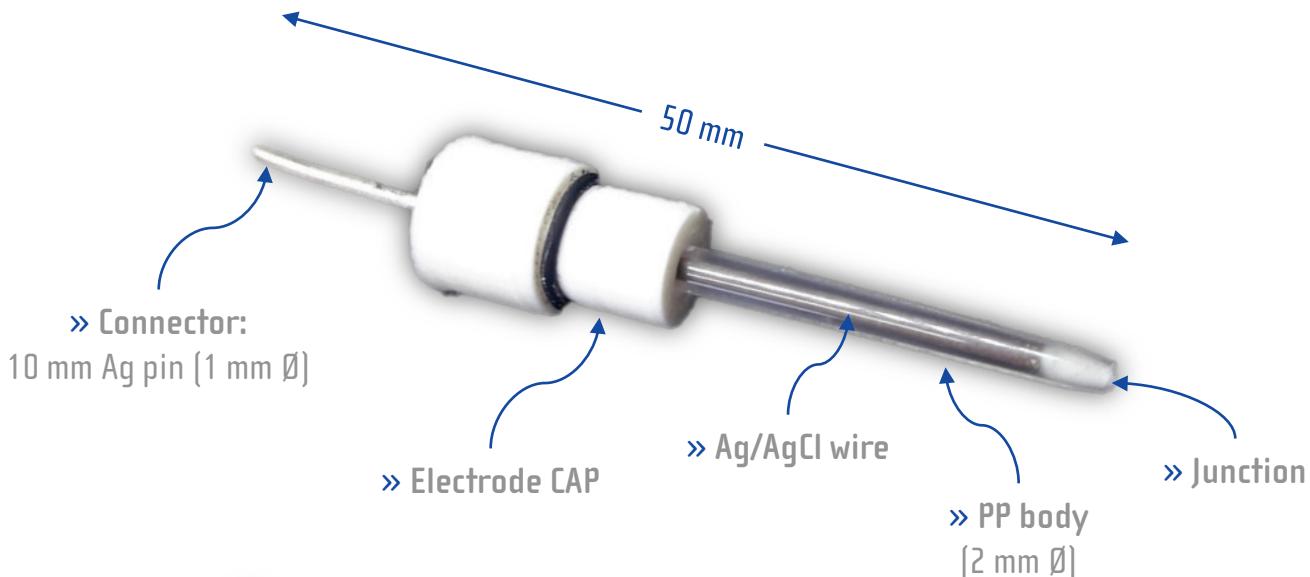


MicruX provides **miniaturized reference** ( $\text{Ag}/\text{AgCl}$ ) and **auxiliary/counter** (Pt or SS) electrodes for using with MicruX' thin-film (micro)electrodes and AIO platform. **External electrodes** (reference and auxiliary/counter electrodes) can be a useful solution in several electroanalytical applications.

## » Reference Electrode – $\text{Ag}/\text{AgCl}$

**Silver/Silver Chloride** electrode is one of the most used reference electrodes for electrochemical measurements. This reference electrode provides an highly **stable potential** along the electrochemical experiments.

MicruX' miniaturized reference electrode consists of a  **$\text{Ag}/\text{AgCl}$  wire** inserted in a **polypropylene** (PP) body with 3M KCl as supporting electrolyte (*Ref. RE- $\text{Ag}/\text{AgCl}$* ).



» Electrode body is made of high resistance PP (polypropylene) compatible with acid and alkaline solutions as well as common organic solvents.

» PP body can be easily unmounted and re-filled with fresh electrolyte (3M KCl) in case it was needed. Moreover, silver/silver chloride wire can be also regenerated by oxidizing in KCl solution.

»  $\text{Ag}/\text{AgCl}$  reference electrode is provided in a vial with a 3M KCl solution. Electrode should be kept at dark and 2-8°C meanwhile it is not used.

# External Electrodes

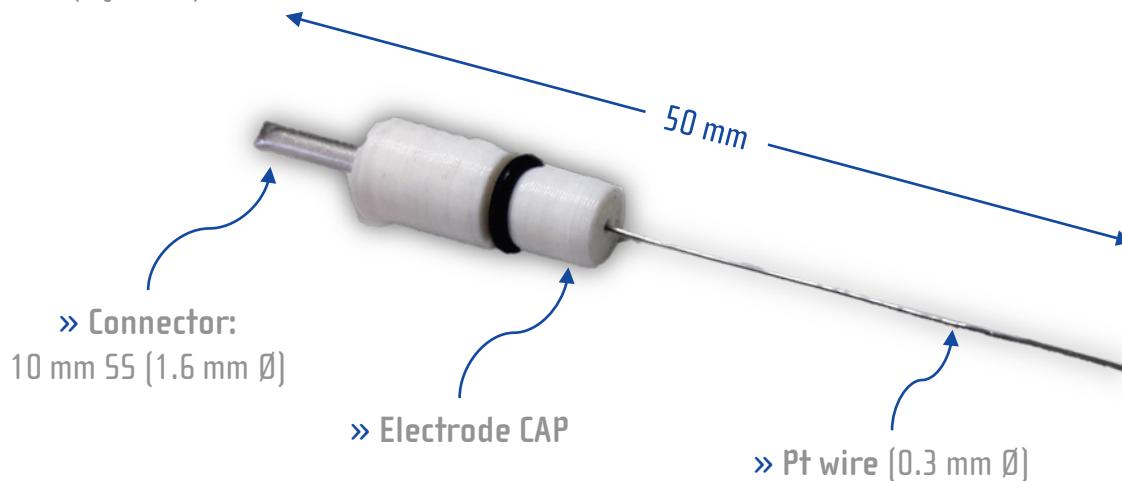


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## » Auxiliary/Counter Electrode – Pt

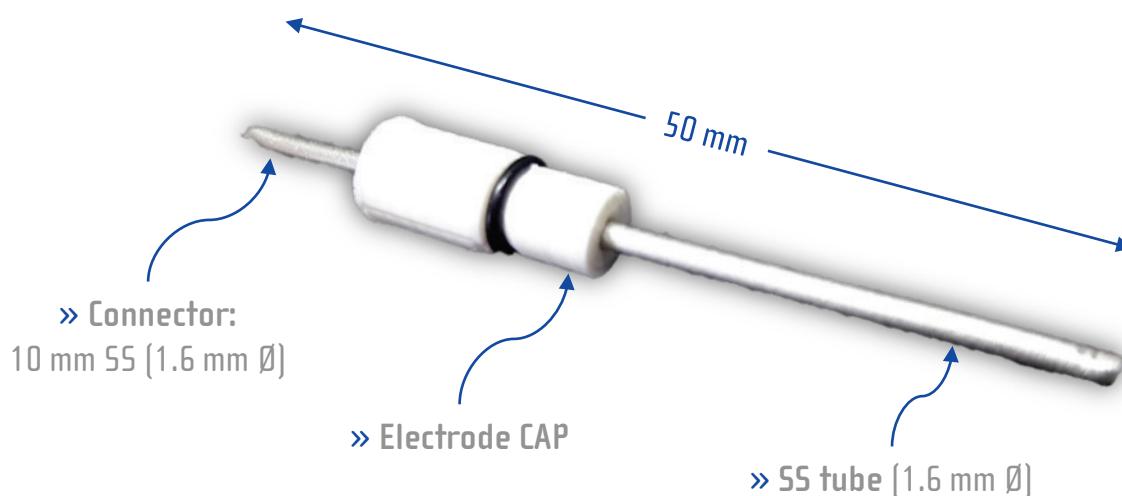
**Auxiliary or counter electrodes** are typically used in three-electrode electrochemical cells. External counter electrodes can be useful for high current measurements or in case the electrode is not integrated on-chip.

Auxiliary/counter electrodes are made of a highly inert materials. Thus, MicruX provides **Platinum Auxiliary/Counter electrodes** (Ref. CE-Pt).



## » Auxiliary/Counter Electrode – SS

Auxiliary/counter electrodes can be made of other inexpensive materials. Thus, MicruX also provides **Stainless Steel (SS) Auxiliary/Counter electrodes** (Ref. CE-SS). SS electrode keeps a good robustness with a lower cost.



# AIO-EEP Platform



MicruX has developed the **EEP platform** (Ref. EEP-AIO-CELL) to adapt the external electrodes to the thin-film (micro)electrodes using the All-in-One cell. This platform simplify the placement of the **external electrodes** in the AIO-cell to be used with the MicruX' thin/thick-film electrodes.

## » External Electrode Platform (EEP) for AIO cell

The **EEP Platform** enables the use of **external electrodes** in the **AIO-cell** in static conditions with the **batch-cell add-ons**. The **EEP Platform** can be used to place just the external reference electrode or the reference and auxiliary electrodes together.

*EEP base*



» Dimensions: 70 x 65 x 35 mm (WxDxH)

» Material: PLA

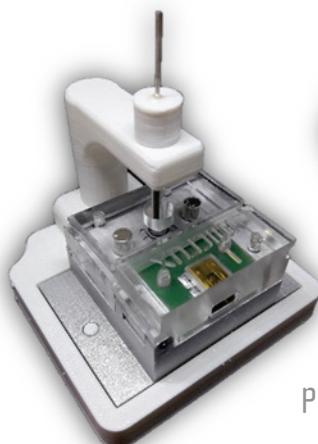
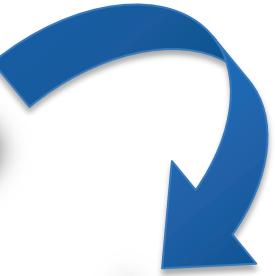


» Easy AIO-cell fitting

» Different Arms for the placement of external electrodes

» Easy and Fast arm positioning

» External electrodes are always placed in the same position



Platform with external  
Reference Electrode



Platform with external  
Reference & Auxiliary  
Electrodes





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