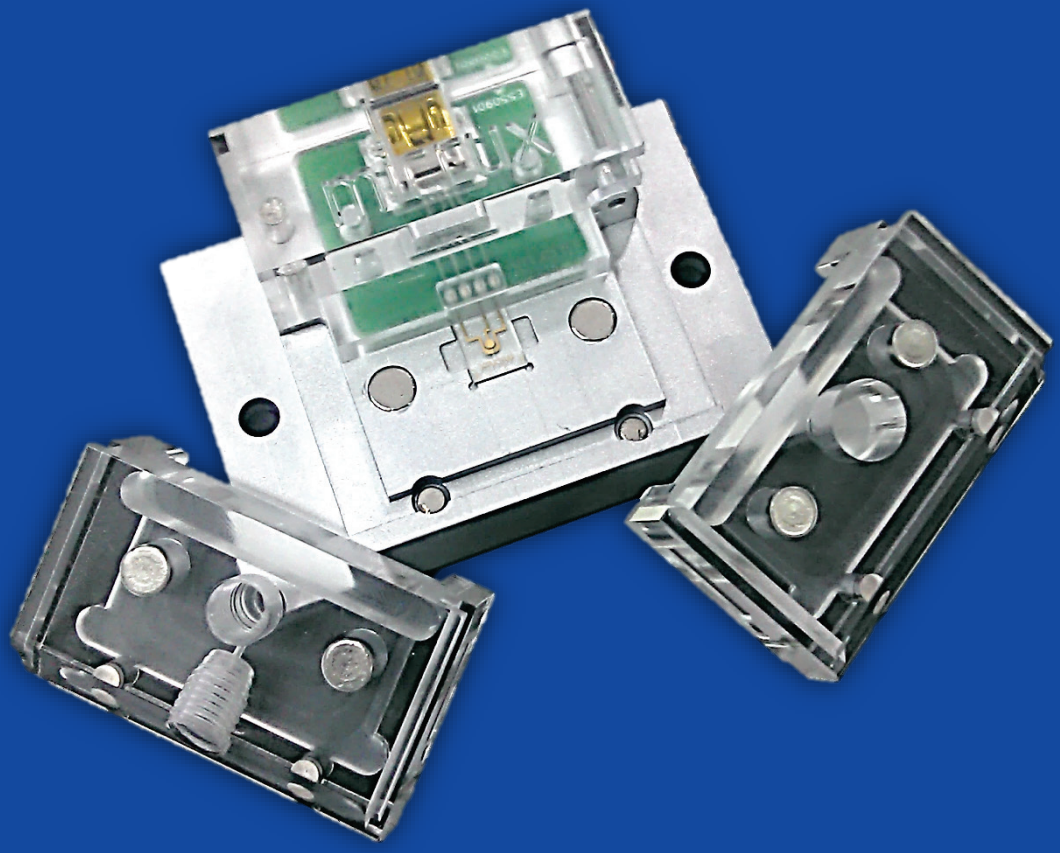
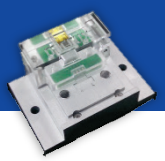
micrux
TECHNOLOGIES



All-in-One platform for thin-film electrodes

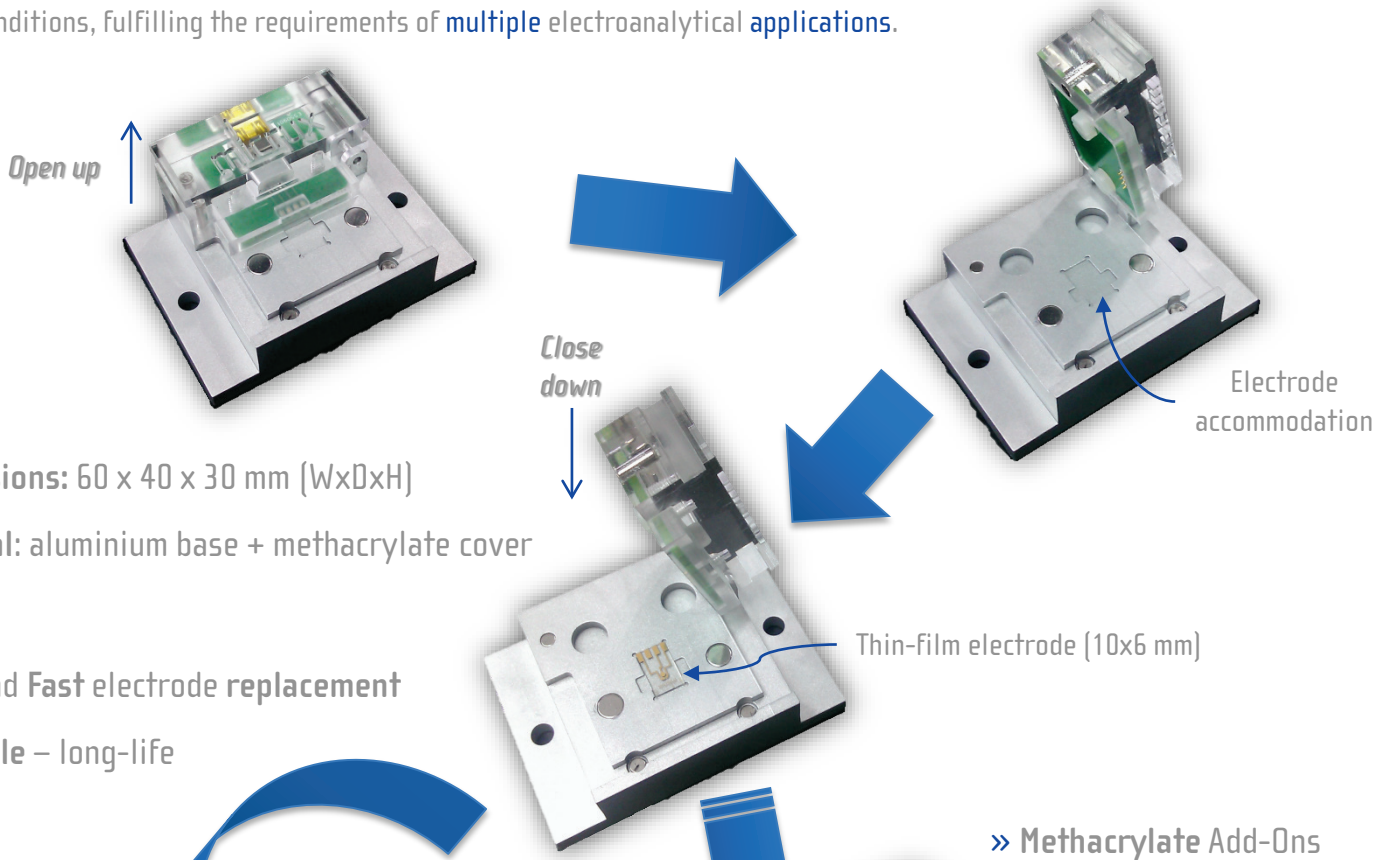
All-in-One Platform



The innovative **All-in-One cell** (*Ref. ED-AIO-CELL*) provides an **unique multipurpose** interface with **movable add-ons** that can be easily **interchanged** for using the thin-film (micro)electrodes supplied by MicruX Technologies.

» AIO-cell general features

The **AIO-cell** enables the use of the thin-film (micro)electrodes in **static** (*Drop / Batch-cell*) or **dynamic** (*Flow-cell*) conditions, fulfilling the requirements of **multiple** electroanalytical **applications**.



» **Dimensions:** 60 x 40 x 30 mm (WxDxH)

» **Material**: aluminium base + methacrylate cover

» **Easy** and **Fast** electrode **replacement**

» **Reusable** – long-life

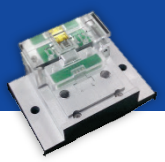
» **Methacrylate** Add-Ons

» **Movable** Add-Ons

» **Easy** Add-Ons **assembly**

DROP-CELL **FLOW-CELL** **BATCH-CELL**

All-in-One Platform



The All-in-One cell is provided in two basic versions, the *base cell + one add-on* (*Ref. ED-AIO-CELL-2x*) or the *base cell + two add-ons* (*Ref. ED-AIO-CELL-3x*). Additional add-ons can be supplied with the base cell or by separated and they can be customized (design & materials) taking into account the specific requirements of the customers.

» AIO-cell specific Add-ons features

» Drop-cell (base cell)

The drop-cell provides a true user-friendly and robust interface with the instrumentation, enabling the use of microvolume (1 – 10 µL sample drops) with all standard (10 x 6 mm) thin-film (micro)electrodes. The drop-cell includes the basic assembly parts for the different add-ons.

» Batch-cell Add-ons

The batch-cell add-on enables the use of the standard (10 x 6 mm) thin-film (micro)electrodes in applications (batch analysis, standard additions, etc...) in which are required larger sample volume up to 400 µL.

» Flow-cell Add-ons

The flow-cell add-ons enable the use of standard (10 x 6 mm) thin-film (micro)electrodes as EC detection system in flowing liquids such as FIA, HPLC, CE, microfluidics, etc...

» Wall-jet (inlet flow perpendicular to the working electrode surface) or Thin-layer (for microfluidic sensors) based flow-cell.

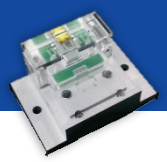
» Standard fluidic ports (¼ " - 28 UNF) with inlet channel of 0.5 mm I.D.

» Low dead-volume (internal volume <500 nL or <60 nL). The cell volume is limited by an O-ring (2 or 3,5 mm I.D.) or microfluidic channels on chip.

» High sensitivity electrochemical measurements.

» Low sample requirements (microvolume < 20 µL).

Add-Ons For AIO cell



Different Flow-cell and Batch-cell add-ons in **PMMA** (standard) and **PEEK** (on demand) are currently available for using in combination with the AIO platform and all standard (10 x 6 mm) thin-film (micro)electrodes.

» Methacrylate Add-ons

Standard add-ons are manufactured in methacrylate. PMMA is a suitable material for most of the analytical applications.

» Batch-cell Add-ons

- *Ref. BC-PMMA-2,0.* Compatible with thin-film (micro)electrodes with *2 mm diameter* electrochemical cell. The cell is sealed with a 3 mm I.D. O-ring.
- *Ref. BC-PMMA-3,5.* Compatible with thin-film IDμElectrodes with *3,5 mm diameter* electrochemical cell. The cell is sealed with a 3,5 mm I.D. O-ring.

» Flow-cell Add-ons (wall-jet & thin-layer)

- *Ref. FC-PMMA-2,0.* Compatible with thin-film (micro)electrodes with *2 mm diameter* electrochemical cell. The cell volume is limited by a 2 mm I.D. O-ring.
- *Ref. FC-PMMA-3,5.* Compatible with thin-film IDμElectrodes with *3,5 mm diameter* electrochemical cell. The cell volume is limited by a 3,5 mm I.D. O-ring.
- *Ref. TL-PMMA-1,0.* Compatible with microfluidic electrochemical sensors. The inlet/outlet of the microfluidic channel is sealed with two 1,15 mm I.D. O-rings.

» PEEK Add-ons

Add-ons are also available in PEEK (polyether ether ketone) on demand. PEEK offers advantages for applications where high mechanical and chemical resistance is required.

» Batch-cell Add-ons

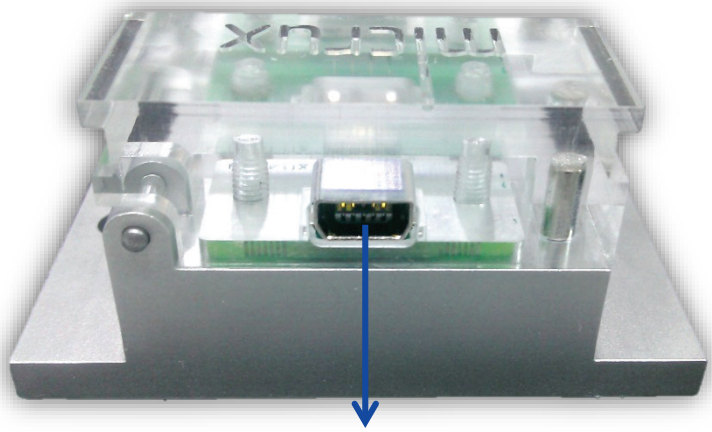
- *Ref. BC-PEEK-2,0.* Compatible with thin-film (micro)electrodes with *2 mm diameter* electrochemical cell. The cell is sealed with a 3 mm I.D. O-ring.
- *Ref. BC-PEEK-3,5.* Compatible with thin-film IDμElectrodes with *3,5 mm diameter* electrochemical cell. The cell is sealed with a 3,5 mm I.D. O-ring.

» Flow-cell Add-ons (wall-jet & thin-layer)

- *Ref. FC-PEEK-2,0.* Compatible with thin-film (micro)electrodes with *2 mm diameter* electrochemical cell. The cell volume is limited by a 2 mm I.D. O-ring.
- *Ref. FC-PEEK-3,5.* Compatible with thin-film IDμElectrodes with *3,5 mm diameter* electrochemical cell. The cell volume is limited by a 3,5 mm I.D. O-ring.
- *Ref. TL-PEEK-1,0.* Compatible with microfluidic electrochemical sensors. The inlet/outlet of the microfluidic channel is sealed with two 1,15 mm I.D. O-rings.

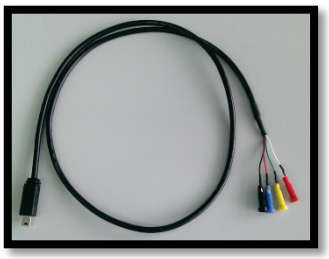
» AIO-cell instrument-interfacing

» AIO-cell interfacing



Integrated easy-to-use connector (**miniUSB-type connector**) with pogo-pins

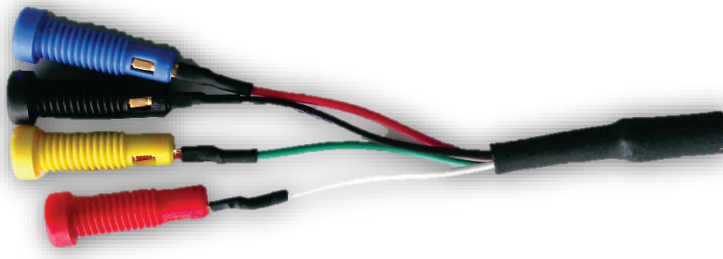
» Universal cable



The All-in-One cell is supplied with an universal cable compatible with any commercial electrochemical instrument.

miniUSB to AIO-cell

Female/male banana plug to instrument



Plug to instrumentation may be available in other format under previous request.

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