

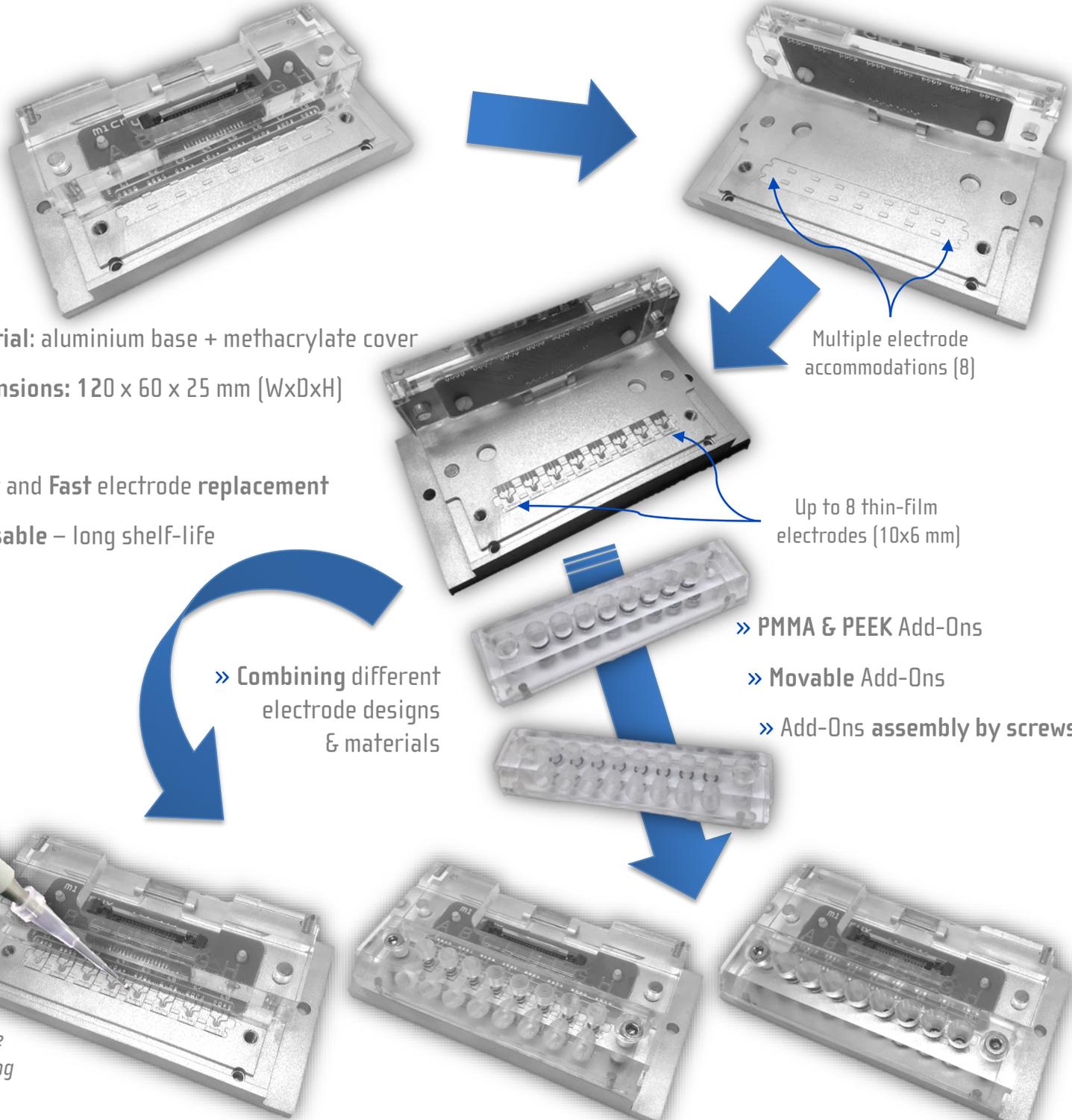
Multi8x All-in-One platform
for thin-film electrodes



The Multi8x All-in-One cell (Ref. ED-MULTI8x-AIO-CELL) provides a multiplexing interface with movable add-ons that can be easily interchanged for using up to eight thin-film (micro)electrodes supplied by MicruX Technologies.

» Multi8x AIO-cell general features

The multi8x AIO-cell enables the use of up to eight thin-film (micro)electrodes in static (Drop / Batch-cell) or dynamic (Flow-cell) conditions, providing a multiplexed detection system in several applications.



- » Material: aluminium base + methacrylate cover
- » Dimensions: 120 x 60 x 25 mm (WxDxH)
- » Easy and Fast electrode replacement
- » Reusable – long shelf-life

» Combining different electrode designs & materials

Multiple electrode accommodations (8)

Up to 8 thin-film electrodes (10x6 mm)

» PMMA & PEEK Add-Ons

» Movable Add-Ons

» Add-Ons assembly by screws

Sample dropping

MULTI-DROP-CELL

MULTI-FLOW-CELL

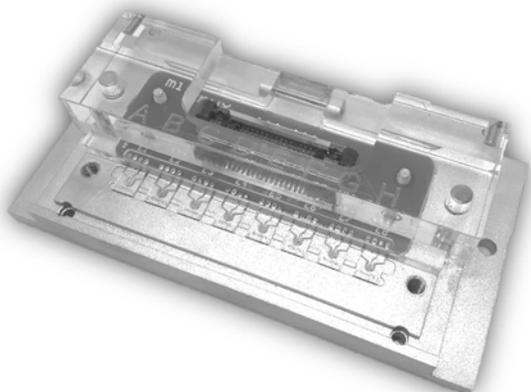
MULTI-BATCH-CELL



The **multi8x AIO cell** is provided in two basic versions, the *base cell + one add-on* (Ref. ED-MULTI8x-AIO-CELL-1x) or the *base cell + two add-ons* (Ref. ED-MULTI8x-AIO-CELL-2x). Additional **add-ons** can be supplied with the base cell or by separated and they can be **customized** (design & materials).

» Multi8x AIO-cell specific Add-ons features

» Multi-drop-cell (base cell)



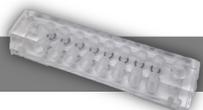
The **multi-drop-cell** provides a user-friendly and robust interface with a multi-potentiostat, enabling the use of microvolume (**1 – 10 μ L sample drops**) with up to **eight** standard (10 x 6 mm) thin-film (micro)electrodes. The drop-cell includes the basic assembly parts for the different add-ons.

The **multi-batch-cell** add-on enables the use of up to **eight** 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 μ L per cell**. The *batch cell add-on features correspond to a column (A \rightarrow H) of a 96-well microplate.*

» Multi-batch-cell Add-ons



» Multi-flow-cell Add-ons



The **multi-flow-cell** add-ons enable the use of up to **eight** 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** based flow-cell. The inlet flow is perpendicular to the working electrode surface.
- » Standard **fluidic ports** ($\frac{1}{4}$ " - 28 UNF) with inlet channel of 0.5 mm I.D.
- » **Low dead-volume** (internal volume < 500 nL). The cell volume is limited by an O-ring (2 or 3,5 mm I.D.).
- » **High sensitivity** electrochemical measurements.
- » **Low sample** requirements (microvolume < 20 μ L).

Add-Ons For AIO cell



Different **multi-flow-cell** and **multi-batch-cell add-ons** in **PMMA** (standard) and **PEEK** (on demand) are available for using in combination with the multi8x AIO platform and 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.



» Multi-batch-cell Add-on

- ❑ *Ref. multi8x-BC-PMMA-5,0.* Compatible with thin-film (micro)electrodes with 2 mm or 3,5 mm diameter electrochemical cell. The cell is sealed with a 5 mm I.D. O-ring.



» Multi-flow-cell Add-ons (wall-jet)

- ❑ *Ref. multi8x-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. multi8x-FC-PMMA-3,5.* Compatible with thin-film 10µElectrodes with 3,5 mm diameter electrochemical cell. The cell volume is limited by a 3,5 mm I.D. O-ring.

» 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. multi8x-BC-PEEK-5,0.* Compatible with thin-film (micro)electrodes with 2 mm or 3,5 mm diameter electrochemical cell. The cell is sealed with a 5 mm I.D. O-ring.



» Flow-cell Add-ons (wall-jet)

- ❑ *Ref. multi8x-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. multi8x-FC-PEEK-3,5.* Compatible with thin-film 10µElectrodes with 3,5 mm diameter electrochemical cell. The cell volume is limited by a 3,5 mm I.D. O-ring.



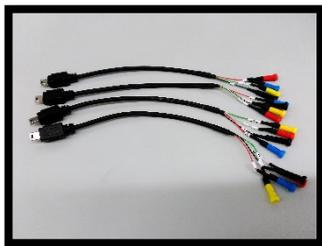
» Multi8x AIO platform multipotentiostat-interfacing

» miniUSB box / IDC cable

The multi8x AIO platform (with a header connector at cover) is connected to a *miniUSB box* through a *IDC cable*. Eight individual miniUSB connectors (A→H) are integrated in the box.



» Universal cable

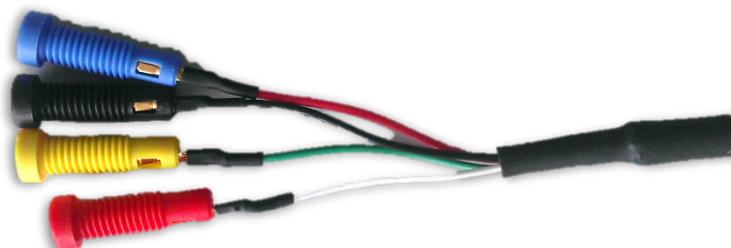


Eight **universal USB cables** with banana terminals are supplied for individual interfacing of each sensor with multi-potentiostat cable. Up to 32 individual connections can be accomplished (4 *per* each USB cable/ chip).



Female/male banana plug to potentiostat

miniUSB to USB box



Customized connectors to your multi-potentiostat are also available on-demand.



Mora-Garay Industrial Park · Juan de la Cierva, 2C, Bldg. # 6
33211 · Gijón (Asturias) · SPAIN

Phone/FAX: +34 984151019

E-mail: info@micruxfluidic.com

Web: www.micruxfluidic.com

