Electrochemical cells

01

FLOW CELLS

Flow cells designed for screen-printed electrodes (SPE) and interdigitated electrodes (IDE). They are designed to obtain an **inlet flow** perpendicular to the electrode surface and an **outlet flow** at an angle of 45°. Also, they have an opening and closing system with magnets or screws, depending on the model. Thanks to an **o-ring**, **the volume of the electrochemical cell is delimited**.



These cells are made of methacrylate and thanks to their transparency, bubbles are easily detected. Some models are available in other materials that have a higher stability to work with organic solvents.

*Custom designs and materials are available upon request.

FLWCL

Flow cell for screen-printed electrodes (SPEs)

- Materials available: methacrylate (ref. FLWCL), PEEK (ref. FLWCL-PEEK) or polypropylene (ref. FLWCL-P)
- Suitable electrodes: standard format SPEs with the sensing part in the middle of the strip
- O-ring type: enclosing the complete electrochemicall cell (WE., AUX. and REF.)
- Open-close system: magnets
- Product includes: pack of flow fittings (two nuts for grippers, two grippers and 80 cm of tubing 1/6)



FLWCL-IDE

Flow cell for interdigitated electrodes (IDEs)

- Materials available: methacrylate (ref. FLWCL-IDE) or teflon (ref. FLWCL-IDE-TEF)
- Suitable electrodes: glass G-IDE electrodes without AUX. and REF.
- O-ring type: enclosing a limited area of the G-IDE
- Open-close system: magnets
- Product includes: pack of flow fittings (two nuts for grippers, two grippers and 80 cm of tubing 1/6)



FLWCL-SC

Flow cell for SPEs with screws

- Materials available: methacrylate (ref. FLWCL-SC)
- Suitable electrodes: standard format SPEs with the sensing part in the middle of the strip
- O-ring type: enclosing the complete electrochemicall cell (WE., AUX. and REF)
- Open-close system: screws
- Product includes: pack of flow fittings (two nuts for grippers, two grippers and 80 cm of tubing 1/6)
- Additional information: bottom part made in aluminum





FLWCL-WS

Flow cell for work in solution SPEs

- Materials available: methacrylate (ref. FLWCL-WS)
- Suitable electrodes: work in solution SPEs with the sensing part near the end of the strip
- O-ring type: enclosing the complete electrochemicall cell (WE., AUX. and REF.)
- Open-close system: magnets
- Product includes: pack of flow fittings (two nuts for grippers, two grippers and 80 cm of tubing 1/6)



CFLWCL-WE

Flow cell for SPEs- Only working electrode

- Materials available: methacrylate (ref. CFLWCL-WE) or PEEK (ref. CFLWCL-WE-PEEK)
- Suitable electrodes: standard format SPEs with the sensing part in the middle of the strip
- O-ring type: enclosing only the working electrode (WE.)
- Open-close system: magnets
- Product includes: pack of flow fittings (two nuts for grippers, two grippers and 80 cm of tubing 1/6)



CFLWCL-MAGN

Flow cell for magnetic assays with screen-printed electrodes

- Materials available: methacrylate (ref. CFLWCL-MAGN)
- $\bullet \ \, \text{Suitable electrodes: standard format SPEs with the sensing part in the middle of the strip} \\$
- O-ring type: enclosing the complete electrochemicall cell (WE., AUX. and REF.)
- Open-close system: mechanical
- \bullet Product includes: pack of flow fittings (two nuts for grippers, two grippers and 80 cm of tubing 1/6)
- Additional information: this flow-cell is associated with a powered switchable magnet suitable to perform FIA experiments with magnetic beads





FLWCL8X

Flow-Cell for 8X format screen-printed electrodes

- Materials available: methacrylate (ref. FLWCL8X)
- Suitable electrodes: 8X format SPEs
- O-ring type: enclosing each individual 8X electrochemicall cell (WE., AUX. and REF.)
- Open-close system: screws
- Product includes: pack of flow fittings (16 nuts for grippers, 16 grippers, four m of tubing 1/6 and Allen key)
- Additional information: bottom part made in aluminum



FLWCL8X1C

One channel flow-cell for 8X format screen-printed electrodes

- Materials available: methacrylate (ref. FLWCL8X1)
- Suitable electrodes: 8X format SPEs
- O-ring type: thin-layer enclosing all 8X electrochemicall cells (8x WE., AUX. and REF.)
- Open-close system: screws
- Product includes: pack of flow fittings (16 nuts for grippers, 16 grippers, four m of tubing 1/6 and Allen key)
- Additional information: bottom part made in aluminum



HPLCELL

HPLC cell for screen-printed electrodes

- Materials available: PEEK (ref. HPLCELL)
- \bullet Suitable electrodes: standard format SPEs with the sensing part in the middle of the strip
- O-ring type: enclosing the complete electrochemicall cell (WE., AUX. and REF.)
- Open-close system: wedge for adjusting the intermediate piece





Electrochemical cells

04 cells

Batch cells for screen-printed electrodes (SPE) and interdigitated electrodes (IDE). Suitable for working with volumes up to 5-8 mL depending on the model. Made of methacrylate or other materials with higher stability to work with organic solvents.

*Customized designs and materials are available upon request.

SPECELL

Disposable well cell for screen-printed electrodes

- Suitable electrodes: SPEs with the sensing part in de middle of the strip
- Placement system: adhesive
- \bullet Additional information: lightweight and fast assembly cells for easy handling of electrodes. Suitable cell for high volume drop assays (up to 150 $\mu L)$ of aqueous solutions. This reference is commercialized in 75 units packs





SPECELL4W

Disposable well cell for 4W format screen-printed electrodes

- Suitable electrodes: SPEs consisting of 4W format working electrodes that share the auxiliary and reference electrodes
- Placement system: adhesive
- \bullet Additional information: lightweight and fast assembly cells for easy handling of electrodes. Suitable cell for high volume drop assays (up to 500 $\mu L)$ of aqueous solutions. This reference is commercialized in 20 units packs





SPECELL8W

Disposable well cell for 8W format screen-printed electrodes

- Suitable electrodes: SPEs consisting of 8W format working electrodes that share the auxiliary and reference electrodes
- Placement system: adhesive
- \bullet Additional information: lightweight and fast assembly cells for easy handling of electrodes. Suitable cell for high volume drop assays (up to 1000 $\mu L)$ of aqueous solutions. This reference is commercialized in 20 units packs

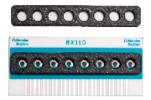




SPECELL8X

Disposable well cell for 8X format screen-printed electrodes

- Suitable electrodes: SPEs consisting of 8X format (each electrochemical cell contains the three electrodes: working, auxiliary and reference)
- Placement system: adhesive
- \bullet Additional information: lightweight and fast assembly cells for easy handling of electrodes. Suitable cell for high volume drop assays (up to 100 $\mu L)$ of aqueous solutions. This reference is commercialized in 20 units packs



CELL

Cell for screen-printed electrodes

- Materials available: methacrylate (ref. CELL) or PEEK (ref. CELL-PEEK)
- Suitable electrodes: work in solution SPEs with the sensing part near the end of the strip
- Open-close system: thread sealing
- Additional information: it allows optional stirring and it is recommended for working with deaerated samples and for standard additions



CELL-IDE

Cell for interdigitated electrodes

- Materials available: methacrylate (ref. CELL-IDE) or PEEK (ref. CELL-IDE-PEEK)
- Suitable electrodes: all catalogue IDE models
- Open-close system: thread sealing
- Additional information: it allows optional stirring and it is recommended for working with deaerated samples and for standard additions





Electrochemical cells

TCELL

Thermostatic cell for screen-printed electrodes

- Materials available: methacrylate (ref. TCELL)
- Suitable electrodes: work in solution SPEs with the sensing part near the end of the strip
- Open-close system: thread sealing
- Additional information: it allows temperature control through the thermostatic jacket. It also allows optional stirring and is suitable for working with deaerated samples and for standard additions.



CFLWCL-CONIC

Cell for screen-printed electrodes - conical well

- Materials available: methacrylate (ref. CFLWCL-CONIC) or PEEK (ref. CFLWCL-CONIC-K)
- Suitable electrodes: standard format SPEs with the sensing part in the middle of the strip
- O-ring type: enclosing the complete electrochemicall cell (WE., AUX. and REF.)
- Open-close system: magnets



CELLS ACCESSORIES

CELLHOLDER

Holder for cells

- Materials available: PEEK (ref. CELLHOLDER)
- Suitable for cells: refs. CELL, CELL-PEEK, CELL-IDE and CELL-IDE-PEEK



CUSTOMIZED CELLS

Metrohm DropSens can manufacture customized cells following your specifications to suit your specific application. You can choose from multiple designs and materials for your design.

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