SenCell™ – High Sensitivity Flow Cell for ECD

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- **Highest sensitivity**
- **Adjustable Spacer Technology (AST)**
- **No spacer or gasket**
- **Fast stabilization**

The SenCell is a new generation electrochemical flow cell specifically designed for highest sensitivity. The tool free assembly and the continuously adjustable working volume guarantee ease of use and fast stabilization. The volume of the cell is small and can be adjusted between 0 and 300 nL. In addition, the cell can withstand a pressure of several bars, making the cell ideally suited for use in UHPLC with Electrochemical Detection (ECD).

Highest sensitivity

To realize the highest detection sensitivity, the cell design is based on the confined wall-jet principle. A three-electrode configuration is used consisting of working electrode (WE), reference electrode (REF) and auxiliary electrode (AUX). The AUX is kept at precisely the same potential as the reference electrode via a voltage clamp, compensating for any polarization effects that might occur at the electrodes. In addition, utmost care has been devoted to the quality and finishing of the electrode material so that the highest sensitivity with fast stabilization is achieved, making the cell ideally suited for ultra-trace analysis in (U)HPLC, Micro- and Capillary LC/ECD.

Adjustable Spacer Technology (AST)[1]

The new design is using Adjustable Spacer Technology (AST), the use of polymeric gaskets (spacers) is now obsolete. To adjust the spacer (cell volume), simply turn the cell with an adjustment key (which is provided) from the present position to the desired position e.g., "2" to "1". The spacer is adjusted to achieve highest detection sensitivity (signal-to-noise ratio).

[1] Patent pending

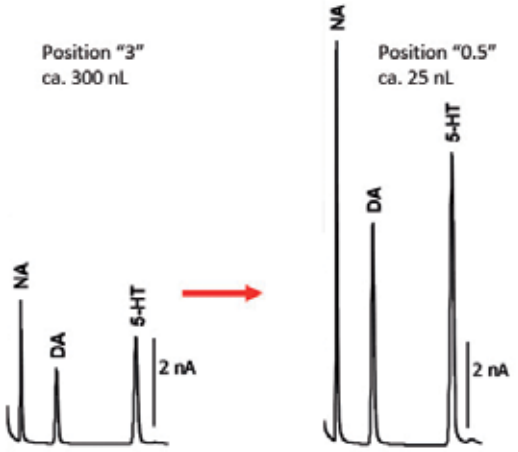
Adjustment of the spacer

Adjustment of the spacer from position 2 (left side) to 1 (right side). Simply turn the cell bottom counter clockwise with the provided adjustment key.

SenCell™

Chromatograms

Chromatograms of 100 nM standard of catecholamines with adjustment of the SenCell spacer from position 3 to 0.5, corresponding to approx. 300 and 25 nL working cell volume, respectively.



Ease of use

The tool free, easy-lock screw assembly allows for fast (dis-)assembly. Furthermore the Adjustable Spacer Technology (AST) guarantees for highest sensitivity (S/N) and fast stabilization.

Reference electrodes

The SenCell is available with 3 different color coded reference electrodes that can be easily exchanged to fit any application.

- HyREF (Pd/H_2) – black
- ISAAC (In Situ Ag/AgCl) – green
- Salt Bridge (Ag/AgCl) – blue

Specifications SenCell™	
Cell Type	Three electrode, wall-jet flow cell
Cell working volume (based on 2 mm WE)	0 - 300 nL (adjustable)
Total cell volume	approx. 0.5 mL
Working electrode diameter	2 mm
Working electrodes (WE)	Glassy Carbon
Reference electrodes	SB (Salt bridge Ag/AgCl), ISAAC (In-situ Ag/AgCl), HyREF™ (Pd/H_2)
Auxiliary electrode	Stainless steel
Wetted materials	PCTFE, Glassy Carbon, Stainless steel, PEEK, Silicone, REF material (Pd or Ag and AgCl)
Max. pressure	5 bar / 73 psi
Fluidic connections	1/16" o.d. PEEK tubing, with 10-32 PTCFE fingertight connections
Electric connections	Cell cable for use with electrochemical detector

Part no	Description
116.4120	SenCell 2 mm GC salt bridge (sb)
116.4220	SenCell 2 mm GC ISAAC
116.4320	SenCell 2 mm GC HyREF

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