

DECADE ELITE SCC

ELECTROCHEMICAL DETECTOR FOR HPLC

THE MOST SENSITIVE DETECTOR
FOR THE QUALITY CONTROL OF FDG

- ACCURATE
- VERSATILE
- SENSITIVE
- PERFECT FOR FDG-QC



This versatile electrochemical detector offers flexibility and stable working conditions for all applications using electrochemical (EC) detection. It has a highly stable Faraday-shielded oven compartment accommodating column and flow cell. Our flow cells and EC detectors have proven to be the best possible combination for extremely sensitive EC analyses.

Our detector can control up to 4 flow cells. Multiple flow cells can be used in a parallel or serial configuration. A special shielding can be added to shield the column and to increase the radio protection.

The instrument covers a broad range of applications in the DC, pulse and scan mode. The DC mode covers about 90% of all applications.

The pulse mode is important for PAD (Pulsed Amperometric Detection) and ideal for the analysis of carbohydrates such as FDG.

The scan mode is used to obtain a voltamogram in method optimization.

Our EC detector demonstrates superiority in EC detection and sets a new standard in design and performance.

For LC/EC applications, sensitivity is crucial. With a newly developed Advanced Digital Filtering (ADF), we are breaking new records in detection limits.

Additional features are:

- Most sensitive electrochemical detector
- Temperature stabilized cell compartment
- ADF to improve S/N ratio
- Wide selection of flow cells

Technical Specifications

Power	110-240 VAC, 50/60 Hz, 260 VA, autosensing
Operating modes	DC, Pulse and Scan mode
Potential range	± 2.50 V, 10 mV increments
Output (DAC)	± 1 V (16-bit D/A converter)
Output (I/E)	± 2.5 V (unprocessed analog signal)
Auto zero	triggered by keyboard, rear panel TTL input, or control software
LAN	instrument control, data acquisition (USB service port)
Oven	from 7°C above ambient to 60°C, accuracy 0.5°C, stability 0.1°C; accommodates column and flow cell(s)
Regulatory Filter	CE, cMETus approved, RoHS compliant Advanced digital filter (10 - 0.001Hz in 1, 2, 5 increments)

DC mode

Range	10 pA – 200 µA in 1, 2, 5 steps
Data rate	1 - 100 Hz in 1, 2, 5 increments (actual data rate dependent on filter setting)
Noise	≤2 pA with a dummy cell (load of 300 MΩ / 0.5 µF), range 1 nA/V, filter off, Ec +800mV and temperature of 35°C

PULSE mode

Range	10 nA – 200 µA in 1, 2, 5 steps
Waveform	5-step potential pulse (max)
Data rate	1/(pulse duration) Hz
Pulse times	t1: 100 - 2000 ms; t2, t3, t4, t5: 0 - 2000 ms in 10 ms increments
Sample times	ts: 20 ms - to (t1 - 60 ms)

Rear panel I/O connections

1x IEC inlet (Mains), 1x USB B, 1x RJ45 LAN, 1x 9-pins sub-d D Male (Valve), 1x 9-pins sub-d Female (Analog output), 1x 25-pins sub-d Female (Digital I/O)

SCAN mode

Range	10 nA - 50 mV/s in 1, 2, 5 increments
Data rate	1 Hz
Scan rate	1 - 100 mV/s in 1, 2, 5 increments, cycle: half, full or continuous

Physical specifications

Dimensions	D43 x W22 x H44 cm (D16.9" x W8.7" x H17.3")
Weight	max. 14.4 kg (32 lbs.) without flow cell and column

Flow cells

Elysia provides a range of amperometric flow cells with different configurations to optimize your application. The flow cells are QC tested, certified and warranted for a period of (up to) 5 years. For all our cells we provide a QC certified refurbishing service.

FlexCell	most versatile flow cell for LC-ECD Exchangeable working electrode (exchange in a few minutes) Working electrodes : GC, Pt, Au, Ag, MD Low cost of ownership Gold electrode for carbohydrates (PAD) Total cell volume less than 1 µl
SenCell	Adjustable spacer technology (AST) (flow cell 0 to 300 nl) High sensitivity Best suited for trace analysis in (U)HLC, micro- and capillary LC/ECD

