

ECD-AIS200

Electrochemical Detector



High sensitivity and selectivity for automated, analytical HPLC

User friendly

The ECD-AIS200 Electrochemical Detector provides high sensitivity for automated, analytical chromatography of electroactive compounds. With 0.05 to 200 nA/V detection range, this amperometric detector offers both high sensitivity and high selectivity.

The ECD-AIS200 Electrochemical Detector is designed for repetitive applications and increased ease of use. Two methods can be stored.

The digital display shows all important parameters for efficient interpretation:

- volt or nA/V output data
- volt or nA/V offset
- potential
- time constant
- base line decay
- sensitivity
- chromatogram

Additional features of the ECD-AIS200 include:

- Optimized flow path and low dead volume of the thin layer type electrochemical cell.
- An autozero function and easy-to-use software for automated, unattended operation.
- LCD screen that displays the real-time chromatogram and operating parameters.
- Control by computer or through RS-232 interface when integrated into a complete HPLC system.

Sensitive and selective

The ECD-AIS200 provides sensitive, selective detection. The electronic transfer between electrode and compound in solution occurs only if the working potential is held at the right value to oxidize or reduce the compound; the detector is blind when the compounds react above this value.

Innovative electronics and specially designed cell

With a low dead volume, the cell maintains efficiency of the separation. The mirror polish of all cell parts eliminates hydrodynamic disturbances.

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Specifications

Working Electrode	Glassy carbon, flat circular, inserted in lower PCTFE half-block of the flow cell
Auxiliary Electrode	Upper stainless steel half-block
Reference Electrode	Ag/AgCl/Cl-polypropylene, screwed into auxiliary electrode
Spacer Seal	PTFE, 0.1 mm thickness
Cell Volume	2 μ l from cell inlet to working electrode
Dummy Cell	Built-in, simulates electrochemical cell to test baseline noise and drift
Display	LCD screen for real-time display of control parameters and chromatogram
Software	Keypad entry of parameters (10 soft keys)
Working Potential	-2.55 V to +2.55 V, 10 mV increments
Offset Potential	-10 V to +10 V, 10 mV increments
Sensitivity Range	0.05 to 200 nA/V (12 steps)
Time Constant	0.5, 2, and 5 sec.
Manual Control	Autozero and event marker
Protocol Storage	Two sets of parameters can be stored
Noise	Less than 3 percent short term, peak-to-peak (following ASTM standards)
Drift	Less than 3 % per hour at stable temperatures
Remote Control	9-pin RS-232 connector
Electrical Power	110-220 V, 50-60 Hz
Manufacturing Standards	
Safety:	conforms to IEC 1010-1, UL 1262 and CSA 22.2-151
EMC:	conforms to EN 50081-1 for emission and EN 50082-1 for immunity
Dimensions (W x D x H)	34 x 31 x 14 cm; 13.4 x 12.2 x 5.5 inches
Weight	4 kg; 8.8 lbs.

The operational kit includes a complete cell 2 reference electrodes, fittings, gaskets. Different working electrodes are available.

Ordering information

Part Number	Description
PI-105	ECD-AIS200 electrochemical detector



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