C4D Headstage for Capillary Electrophoresis (ET120)

C4D Headstage for CE

- Compatible with most capillary electrophoresis instruments
- Use with silica or plastic capillary (350 to 385 µm OD)
- Compatible with all eDAQ C4D units
- Internal electrodes never require maintenance or cleaning

Description

The ET120 headstage can be connected to any eDAQ C4D unit to make a contactless conductivity detector (C4D) for capillary electrophoresis. The capillary tube (350 to 385 µm outer diameter) is pushed through this headstage, where a pair of internal ring electrodes are positioned. A high frequency AC signal is passed between the electrodes, and the conductivity of the solution in the capillary affects the received AC amplitude. The C4D unit generates the excitation waveform, and provides signal filtering and offset.

Installation is easy: simple slide the capillary through the headstage. There is no need for windowing (scratching off the capillary's polyimide coating) as with optical detectors.

There is a model of the ET120 available for capillaries with 150 µm outer diameter.

Compatibility

Can be used with any eDAQ C4D unit.

The headstage adapter cable is included with the C4D unit, not with the ET120. The correct adapter depends on which C4D unit is being used:
EC1210 headstage adapter is used with:

- ER815 C4D Detector.
- ER825 C4D Multi channel detector.

EC1208 headstage adapter is used with:

- ER225 C4D Data System.
- EA120 C4D Amplifier.
- ER125 C4D Detector.

The ET120 is compatible with most CE systems, including Agilent, Beckman Coulter and PrinCE instruments.

Applications

Contactless conductivity detection can be used for virtually all charged species: inorganic anions and cations, as well as organic ions, such as carboxylic acids, amines, amino acids, peptides, proteins, DNA fragments, antibiotics and many other pharmaceutical compounds.

Specifications

Mechanical	
Guide Tube:	400µm ID, 630µm OD
Suitable Capillary:	350 to 385 µm OD
Electrode length:	2mm
Electrode separation:	2mm
Size:	25mm x 34mm x 13mm
Weight:	20grams
Electrical	
Output voltage:	–0.100 to +5.00Volts
Linear Range:	+0.100 to 2.500Volts

Excitation Level:	1 to 100 Volts peak to peak
Excitation Frequency:	50kHz to 1200kHz +/-1db
Gain x1 =	100mV/µA
Gain x5 =	500mV/µA
Frequency response:	0-10Hz (3dB point)
Noise:	< 3 µV RMS 0-10Hz measured over 1 sec
Drift:	< 3µV/°C measured with no capillary
Power supply:	+/-5Volts +/-5%

eDAQ Pty Ltd reserves the right to alter these specifications at any time.

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