Multi-Channel Contactless Conductivity Detector (ER825)

Multi-Channel Contactless Conductivity Detector shown with eight channels fitted

Applications

- Capillary electrophoresis (CE)
- Ion chromatography (IC)
- Flow injection analysis (FIA)
- and many other applications

Description

This is a multi-channel capacitively–coupled contactless conductivity detector (C^4D). It has between one and eight channels. This enables the user to measure the conductivity at up to eight positions along the length of a capillary or tubing, or to measure the conductivity of up to eight separate capillaries or tubing.

The channels can also factory-configured to record pH, temperature or other detector signals, or for connecting to an eDAQ isoPod. This makes the ER825 into a true Multichannel Configurable Chemistry Workstation.

Compatibility

This instrument is available in the following configurations:

- ER825R: Two channel system with PowerChrom software, for capillary electrophoresis, microchip electrophoresis and chromatography-type applications.

- ER825C: with Chart software, for flow injection analysis and conductivity monitoring applications.

- ER825: for people wishing to use third-party software to record the data. This includes ChemStation from Agilent, 32 Karat from Beckman Coulter and LabVIEW (using the virtual serial interface over USB connection to computer). In this configuration, both analog and serial data outputs are provided.

It is compatible with most CE and IC systems, including Agilent, Beckman Coulter, PrinCE and WynSep instruments.

It is configured at the factory with the desired number of channels and module types. Two module types are available:

- EA010 General Purpose Module for connecting to isoPods or direct analog inputs.

- EA025 C4D Headstage Module for connection to C4D headstages. The C4D excitation frequency and amplitude can be optimised by the user for maximum signal sensitivity, using the C4D Profiler software which is included.

The EA025 is compatible with all eDAQ headstages and platforms, including the ET120 for capillary electrophoresis, the ET125/ET130/ET131 for ion chromatography, flow injection analysis and other applications, and platforms for microchip electrophoresis.

Specifications

Channels:	1 — 8 (specify when ordering)
Input connectors:	10 pin LEMO (for C4D) or DIN (for other detectors)
Signal gain:	x1, x10, x100
Analog signal resolution:	16 bits (Chart software) 24 bits (PowerChrom software)
Virtual serial port resolution	24 bit
Input gain ranges:	±20, 50, 100, 200, 500 mV ±1, 2, 5 V
Excitation frequency:	20 — 2000 kHz
Excitation amplitude:	200 V peak-to-peak max with headstage/platform, sinusoidal AC, @ <50 mA
Offset:	±5.5 V on ±10 V output range

Low pass filters:	1000 (off), 10, 1 Hz
Output signals:	±5 V max, or USB with virtual serial interface
Back panel connectors:	BNC (analog voltage) USB (virtual RS232 serial)
Power requirements: (mains adaptor supplied)	12 V DC, ~10 W
Dimensions (h - w - d):	65 mm - 200 mm - 250 mm (2.6 - 7.9 - 9.8")
Weight:	1.8 kg (4.3 lb) maximum
Operating temperature:	0 to 35 °C 0 to 90% humidity (non-condensing)

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