

Conductivity Transmitter Manual



THE TRANSMITTER

The ECMD1 Conductivity transmitter has a Mini DIN connector that is compatible with all EDT directION Conductivity Cells. The Transmitter takes the conductivity and temperature reading from the cell and outputs this digitally in 7 CSV Packets per second (38,400 Baud Rate) via a Micro-USB connection.

The transmitter can be powered via this Micro USB or via the power socket. Power is indicated by the LED on the front panel.

An analog version of the ECMD1 is available and outputs via 4-20mA loop through 3.5mm Jack Socket.

THE SOFTWARE

The ECMD1-APP can be downloaded upon purchase of the Transmitter. You will need be granted access to the zip file upon completion of the purchase - you will then need to extract the files. Then you can launch the application.

The software allows you to see live readings and calibrate the device from your PC.

Connecting to the device:

The device has a Micro-USB port that can be used to connect to PC.

Once the you have launched the application, it checks for new devices every few seconds. When you plug in the device, you should see 'Ports Updated' appear in the status bar.

To connect to the transmitter, select the correct port from the dropdown and click the 'connect' button. You'll know if you have connected correctly because the status bar should change to 'Device Connected' and data should appear in the text window.

Calibrating the device:

There are two different calibration processes. The standard calibration calibrates the conductivity cell itself, whilst the analog calibration maps the conductivity reading to the mA output of the analog loop.



Standard Calibration

To calibrate the cell and the digital output you will need to place your Conductivity Cell into a 1413mS/cm Standard Solution.

Once you have done that, click the 'calibrate' button. The device is now calibrated and this should be reflected in the status bar.

Analog Calibration

The analog circuit runs on a passive 4-20mA loop. This means that you will need to provide power to the 3.5mm Jack Socket using a 24 or 12v DC supply with positive going to the centre pin.

To calibrate this output you need to click 'Analog Cal'. A dialogue box will appear and you will need to fill in your Upper and Lower Limits.

These limits are the Conductivity values that you want to be mapped to the 4 and 20mA values (e.g. 1uS/cm to 4mA and 100,000uS/cm to 20mA).

Saving Data:

The software allows you to save the current session to a CSV file. To do this, you will need to click the 'Save to CSV' button.

This is structured with the Conductivity, Temperature and Timestamp as the column headings.

When saving, it will save every reading since the app has been opened or the 'Clear Output Window' button has been clicked.

The Graph:

The 7 data points a second are plotted on the graph at the bottom of the screen. This is only visible when the application is maximised or full screen.

You can change the time period displayed on the graph by selecting this from the drop down list in the top bar.

www.edt.co.uk/product/conductivity-transmitter

Instructional Video ----->

