

## Dylos DC1100 COM Port option (v1.11 and later)

This unit varies from the standard DC1100 by the addition of a COM Port interface using a standard 9-pin serial connector. The firmware is also changed to output counts over the serial interface and provide for history download, but otherwise is the same as the standard firmware.

**The customer must supply their own 9pin serial cable or USB to COM port adapter cable as appropriate.**

The serial output format is small counts, comma, large counts, carriage return, line feed:

Example:

```
675,19<CR><LF>
```

This data is output every minute and the counts represent the average concentration over the past minute. The units are – counts/100 per cubic foot. In the above example, the output of 675 would mean the average concentration over the past minute was 67,500 particles per cubic foot.

This data can be viewed by any rs232 terminal or PC terminal program. The setup is as follows ...

```
9600 baud  
8 bits  
no parity  
1 stop bit  
no flow control
```

To read this data with a PC you must either connect a 9pin serial cable from the DC1100 to a COM port on your PC or, if your PC lacks any COM ports, connect a 9 pin serial cable from the DC1100 to a COM Port to USB adapter. **If using a USB adapter, connect the adapter and install its driver software on your computer. This software will create a virtual COM port on your PC which is the COM Port you must select in your terminal program to communicate with the DC1100.**

At this point you can use any terminal program on the PC to communicate with the DC1100. On XP or earlier computers HyperTerminal comes with the operating system. On Vista or later computers another terminal program such as Putty must be used. On Windows XP, first open HyperTerminal by going to START->All Programs-> Accessories->Communications-> HyperTerminal. When you open HyperTerminal you will be prompted to name a new connection. Name the new connection, for example “DC1100 terminal” and click OK. Next a menu screen “Connect To” will appear. Select your COM port using the “connect using” menu and click OK. Next you will have the Port Settings menu. Setup the COM port for 9600 baud, 8 bits, no parity, one stop, and no flow control. Click Ok. At this point you should be connected to the DC1100. If the DC1100 is on and sampling then the counts should be output every minute and appear in the HyperTerminal window. If you desire to save this information to a file then you set up HyperTerminal to capture the incoming text. To do this select Transfer->Capture Text from within HyperTerminal and you will be prompted to name a file. Name your file and click START. All incoming data from the DC1100 will be captured and logged to this file. To stop logging data select Transfer->Capture Text-> Stop.

Once HyperTerminal has been setup and you have named your new connection you do not have to repeat the setup again. Just open your named connection. Also, when using HyperTerminal be aware that the connection to the DC1100 can be disconnected and reconnected. You can check to make sure you are connected by clicking the Call menu – if Disconnect appears as an option then you are connected. If Call appears as an option then you need to click Call to reconnect.

If you are using Windows Vista then you must do a little extra work as Microsoft decided to no longer ship HyperTerminal as part of Windows. You can still download HyperTerminal from [www.hilgraeve.com](http://www.hilgraeve.com) but there may be a charge for doing this.

Click the download HTTP link and install per instructions. Alternately, any of numerous other freeware/shareware programs can be used as terminal programs to communicate with the DC1100.

Now, from either HyperTerminal, Putty, or any other terminal program you can download the internal history memory by typing a capital “D” followed by ENTER. Note, the letter D will not be echoed back to the terminal screen, but it will be transmitted to the DC1100. Once the user has done this the DC1100 will respond with the minute history followed by the hour history and day history in the following format (most recent data first).

```
MIN
265,24
222,12
...
HR
201,6
...
DAY
...
```

#### **Notes for DylosLogger program:**

1. Driver software must be installed for the USB to COM port adapter cable - this software is either on the CD which came with the cable or must be downloaded off the manufacturer’s web site.
2. Install DylosLogger by running Setup.exe from the CD.
3. Always connect the USB to COM port adapter cable **before** starting the DylosLogger program. If you don’t do this then the COM port for the cable will not appear in the DylosLogger port selection drop down menu.
4. Select the right com port in DylosLogger using the drop down menu.
5. Click the file icon to change the log file for storage of data from the DC1100.
6. You must click the red “record” button to start graphing (and storing) data from the DC1100.
7. Click the DownloadHistory button to download the internal memory of the DC1100.
8. Graphs can be printed by using the PrtScr key on the keyboard and then “pasting” (Ctrl-V) the screen image into another program (I.e. Word or Paint) and then printing from that other program. The best looking graphs will be obtained if the DylosLogger window is maximized in size and the graph area is also maximized. Maximize the graph aread by placing the mouse at the top border of the graph area and then dragging the border upwards.