

# DI-100UHS/DI-1000UHS High Speed Connection Interface

## Introduction

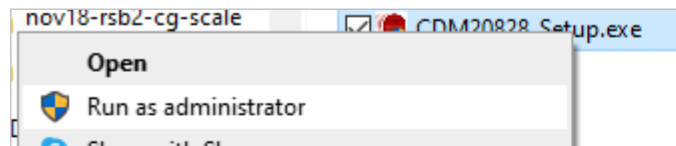
DI-100UHS is a single channel 16-bit USB sensor interface that offers 250 Hz max data output rate.

DI-1000UHS is a single channel 24-bit USB sensor interface that offers 500 Hz max data output rate.

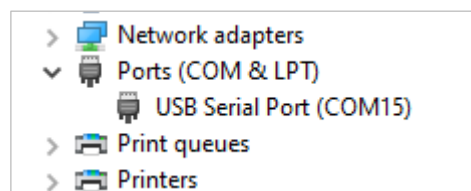


## Instructions

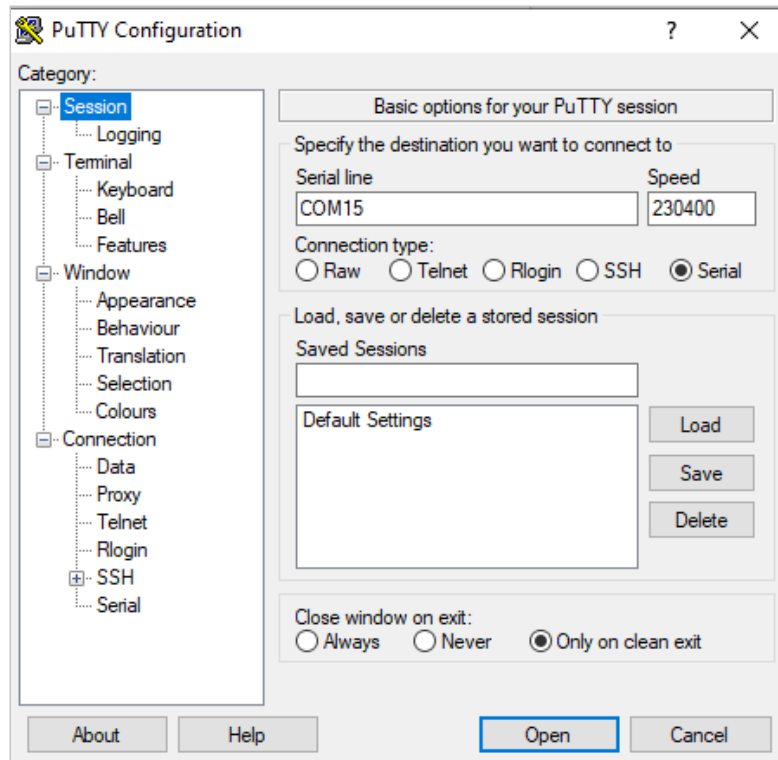
1. Install the drivers provided on the USB Stick for the DI-100/DI-1000 by selecting **'Run as Administrator'**:
  - a. The drivers can also be found at [http://www.ftdichip.com/Drivers/CDM/CDM20828\\_Setup.exe](http://www.ftdichip.com/Drivers/CDM/CDM20828_Setup.exe)



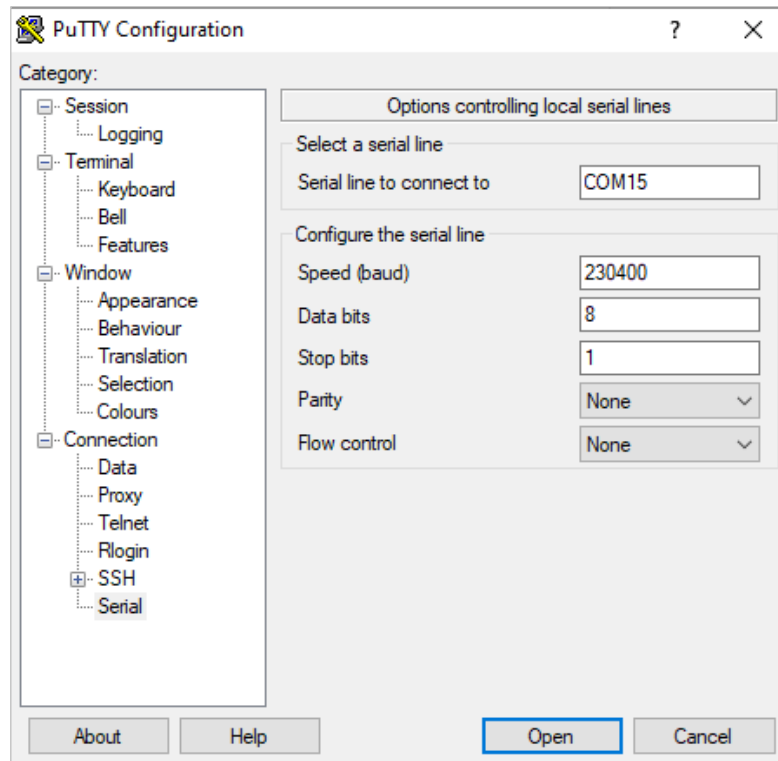
2. Launch Device Manager.
3. Expand the Ports section and you will see a USB Serial Port (COM#) where # is the comport number. Take note of this number as you will need to use it later to connect to the device.



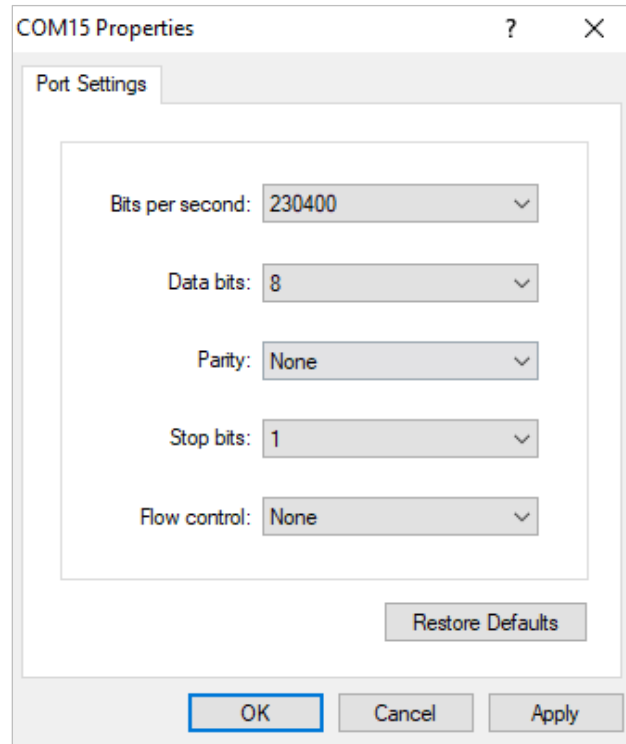
4. If you don't see the comport then try to unplug and plug the device and reinstall the drivers.
5. Launch Putty or any Terminal Emulation Program that can connect to serial devices.
6. Switch the Connection Type to Serial and then enter COM# where # is the number that you noted on step 3 and set the speed (baud rate) to 230400



- Click on serial tab on the bottom right and then change the flow control to None. The other settings should match the ones below



8. Press open and now you should be able to communicate with the sensor via serial port. Press enter (carriage return) and the sensor should respond with "A"
9. Here is what the connection settings look like though hyper terminal



10. And through python

```
def _set_serial_settings(serial_port, port_number):
    """
    sets high speed serial settings
    :param port_number: int of the comport number found in step 3
    """
    serial_port.port = "COM" + port_number # ie COM3
    serial_port.baudrate = 230400 # set the baudrate to 230400
    serial_port.bytesize = EIGHTBITS # number of bits per bytes
    serial_port.parity = PARITY_NONE # set parity check: no parity
    serial_port.stopbits = STOPBITS_ONE # number of stop bit
    serial_port.timeout = 5 # timeout block read
    serial_port.xonxoff = False # disable software flow control
    serial_port.rtscts = False # disable hardware(RTS / CTS) flow control
    serial_port.dsrtdtr = False # disable hardware(DSR / DTR) flow control
    serial_port.writeTimeout = 0 # timeout
```