














# DualStar Communication Software Manual

This manual provides setup and Installation instructions for the Thermo Scientific DualStar Communication computer software for use with the Thermo Scientific DualStar Communication meters to assist with digital data reporting.

## Icon Description

	Click on this icon to view the <b>Default Dual Channel</b> display screen.
	Open the <b>Communication Setting</b> screen.  Configure the <b>COM Port</b> where the meter is connected. Then select <b>Baud Rate</b> as required (Default <b>9600</b> ).
	<b>Pause</b> the logging of data, if online data logging is continue.
	<b>Resume</b> the data logging, if it is paused.
	<b>Retrieve data and display</b> as required based on filter setting. Then data can be printed, exported and deleted.
<b>Connection Status Indication:</b>	
	Meter is <b>connected</b> to the “DualStar Com” PC software.
	Meter is <b>not connected</b> to the “DualStar Com” PC software.
	Select this icon to view the <b>data from channel 1</b> .
	Select this icon to view the <b>data from channel 2</b> .
	Select this icon to <b>view stored logged data</b> filtered by selected date range.
	<b>Print</b> the entire data visible in the list.
	<b>Export</b> the list of data into microsoft excel format.
	<b>Clear</b> the data from the list. <b>Note:</b> This will delete the entire logged data after confirmation.

## Connect to the Meter

DualStar application is configured by default to port **COM1**. After running the DualStar application, it will always try to establish a connection with the device via the configured COM Port or virtual USB port.

The connection status icon indicates, if the connection is successfully established. If the connection fails, use the **Settings** button to choose the correct port number connected to the DualStar meter.

If a connection is established between the Meter and “DualStar Com” software, the connection status icon will be displayed. See Figure 1.



**Figure 1**

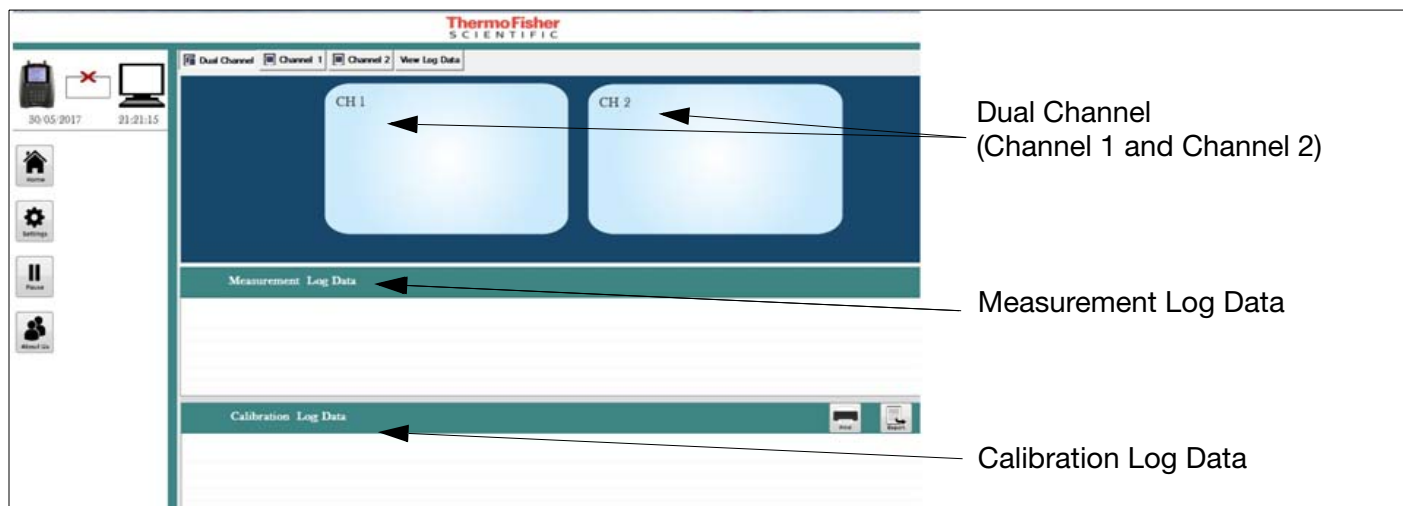
After connection is established between the Meter and PC communication software, the meter should export the required data to the “DualStar Com” Software.

**Note:** To export the data, the meter should be configured properly. Refer configuration details in **Annexure 1**.

DualStar Com Software has four screen layout. The default screen is called “**Home Screen**” which can display data for dual channel. It can also display the exported Calibration data.

The screens are **Channel 1**, **Channel 2**, **Logged Data view** and **Calibration log data**.

1. Home Screen.



**Figure 2**

The **Home Screen** will display data for **Dual Channel** (Channel 1 and Channel 2), **Measurement Log Data** and also **Calibration Log Data**.

**Note:** All this data should export from the meter to the “DualStar Com” Software.

The “**Measurement Log Data**” Screen will display measurement data received by software from meter for dual channel mode. See Figure 2.

The “**Calibration Log data**” Screen will display calibration data when exported by meter. See Figure 2.

## 2. Single Channel Display Screen.

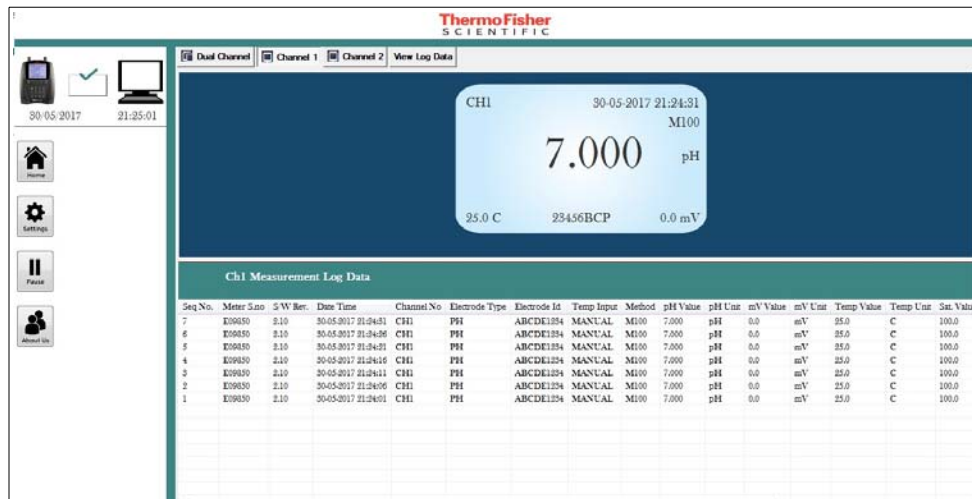


Figure 3

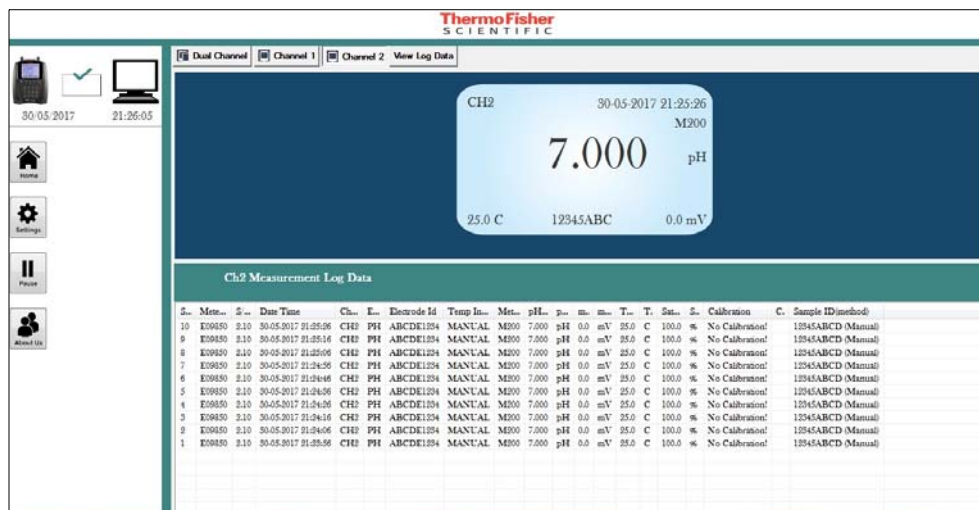


Figure 4

The **Single Channel** Screen will only display logged data for either Channel 1 or Channel 2. If the user Select **Channel 1**, it will display the data logging only for Channel 1. See Figure 3. Similarly if the user Select **Channel 2**, it will only display data logging only for Channel 2. See Figure 4.

### 3. View Log Data Screen.

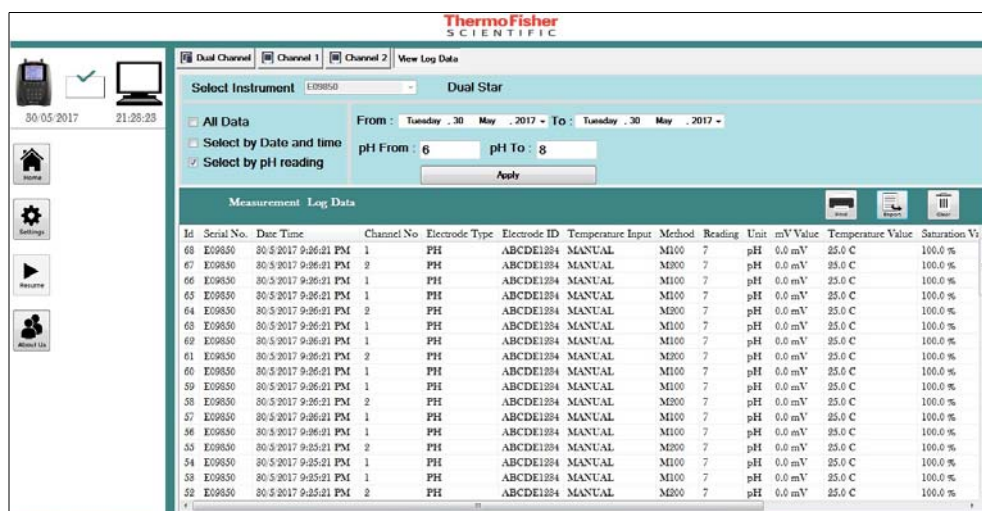


Figure 5

In **Log View Data Screen**, apply various filter setting options to retrieve the logged data from database.

It has three filter selection options:

1. **All Data** - It will retrieve all data logged so far.
2. **Select by Date and Time** - User can select the date range for which data should be retrieved from database.
3. **Select by pH reading** - User can specify the pH range for which the data should be retrieved.

**Note:** Option 2 and Option 3 can be combined to retrieve data based on date and pH reading.

## Annexure 1

### Preparing the Meter to Export Data

DualStar Meter must export data in order to receive data by PC software. From the setup, user can configure the channel for which data needs to be exported.

1. Press **Setup** key on the meter. Select **Channel 1**. See Figure 6.

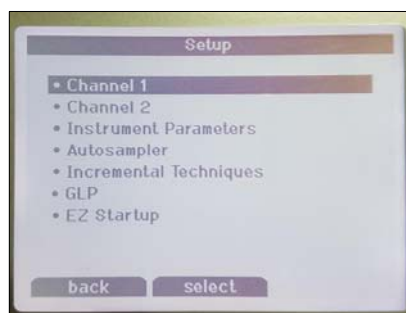
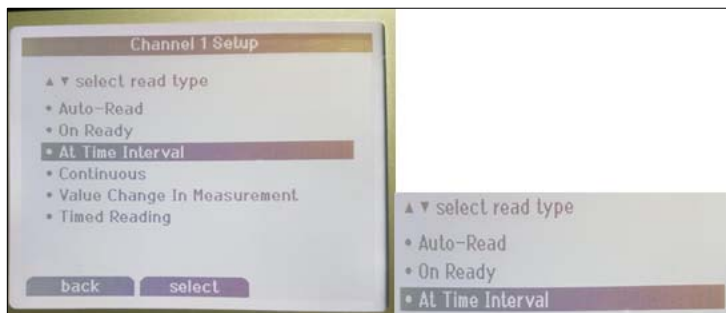


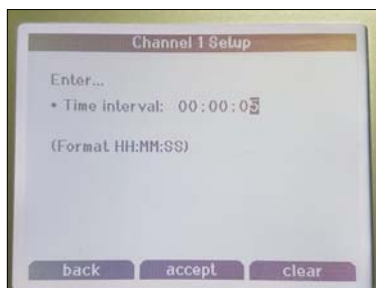
Figure 6

2. Set the **Read Type** to **At Time Interval**. See Figure 7.



**Figure 7**

3. Set the **Time Interval** to around **5 seconds**. See Figure 8.

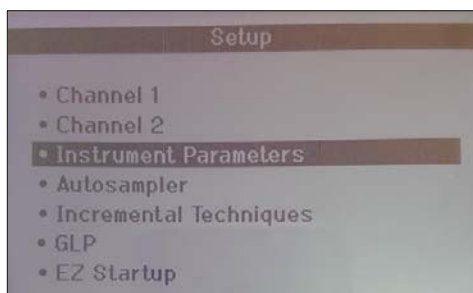


**Figure 8**

For Channel 2, follow the same steps.

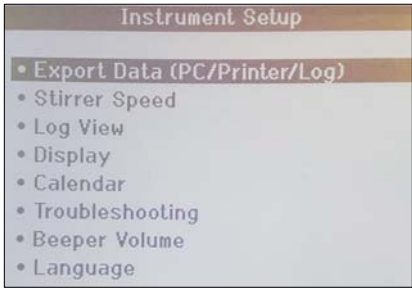
## Setting Export Option

1. Press **Setup** Menu to configure the export option. Select **Instrument Parameters**. See Figure 9.



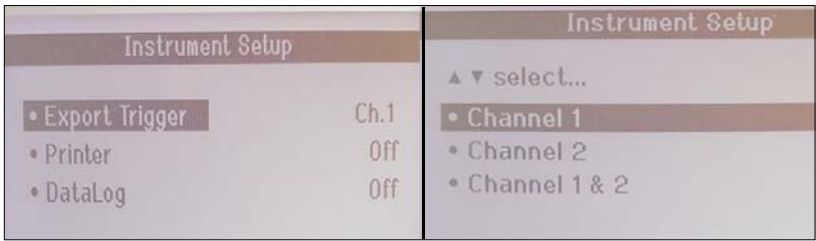
**Figure 9**

- Choose **Export Data** in **Instrument Setup** options. See Figure 10.



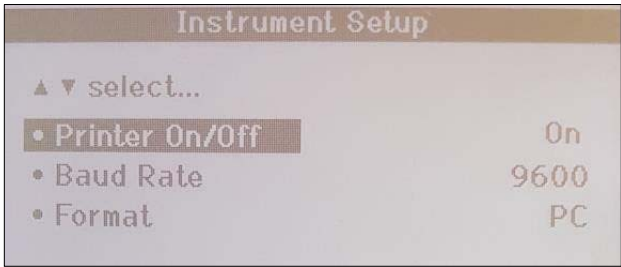
**Figure 10**

- Set the **Export Trigger** to export data in either Channel 1, Channel 2 or in both Channel 1 & 2. See Figure 11.



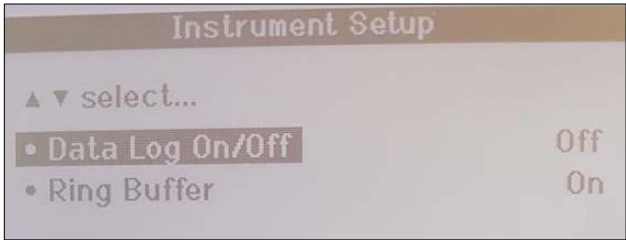
**Figure 11**

- Set the **Printer** option to **ON**. Select **Baud rate** to **9600** and **Format** to **PC**. See Figure 12.



**Figure 12**

- Select the **Data Log** option to **OFF**. See Figure 13.



**Figure 13**

## DualStar Driver Installation Instructions

After successful installation of DualStar application software, ensure that the folder DualStar\_Driver contains the files **dualstar.inf**, **Install\_Driver.exe** & **thermofisher.cat** is created on the Desktop.

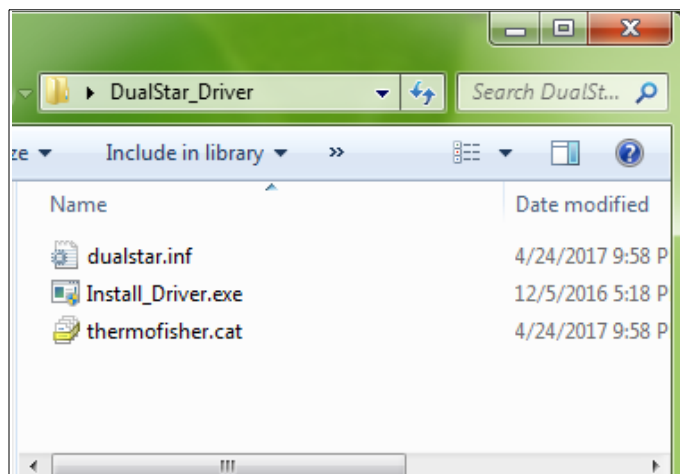


Figure 14

## Installation Steps

1. Connect the USB cable from the DualStar device to the Windows PC. Windows PC shall fail to find the driver. Navigate to the Device Manager from Control panel. The DualStar device shall be shown as **USB VCOM Port**. See Figure 15.

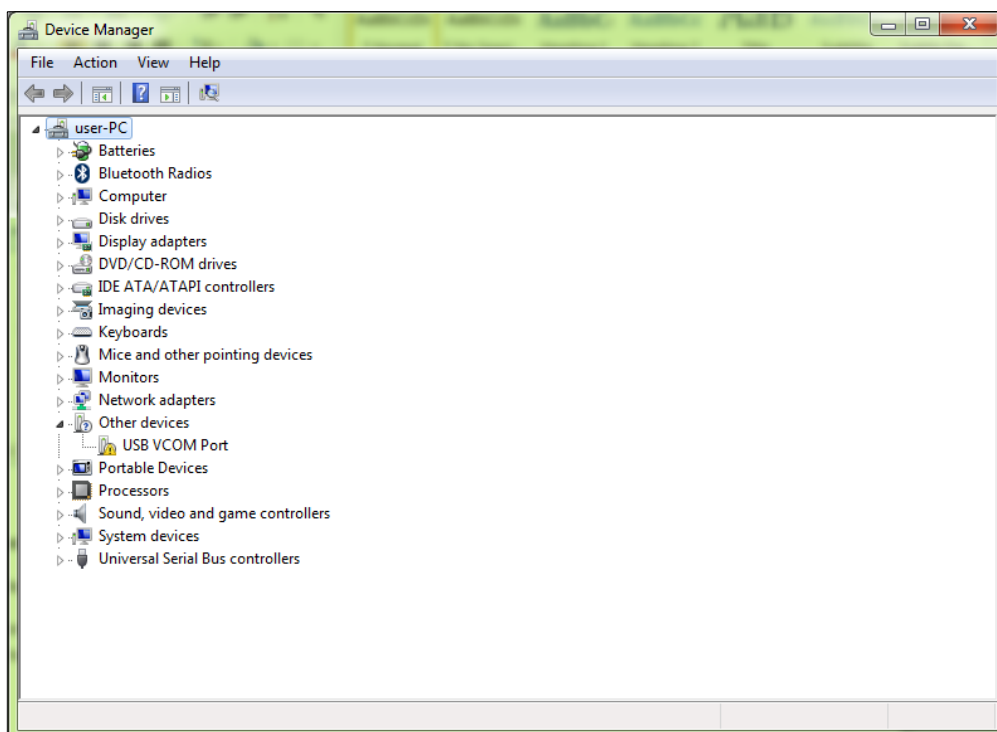
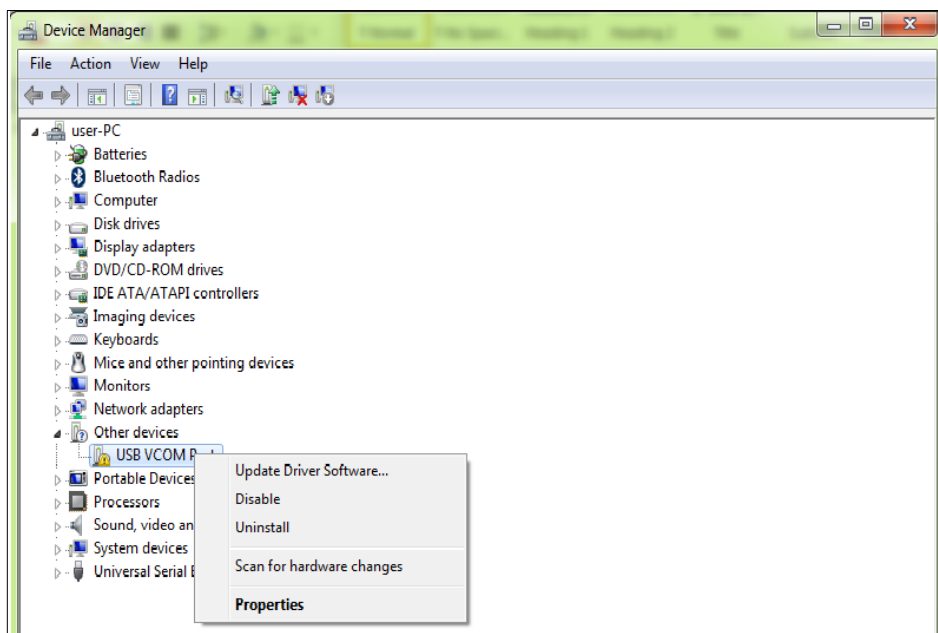


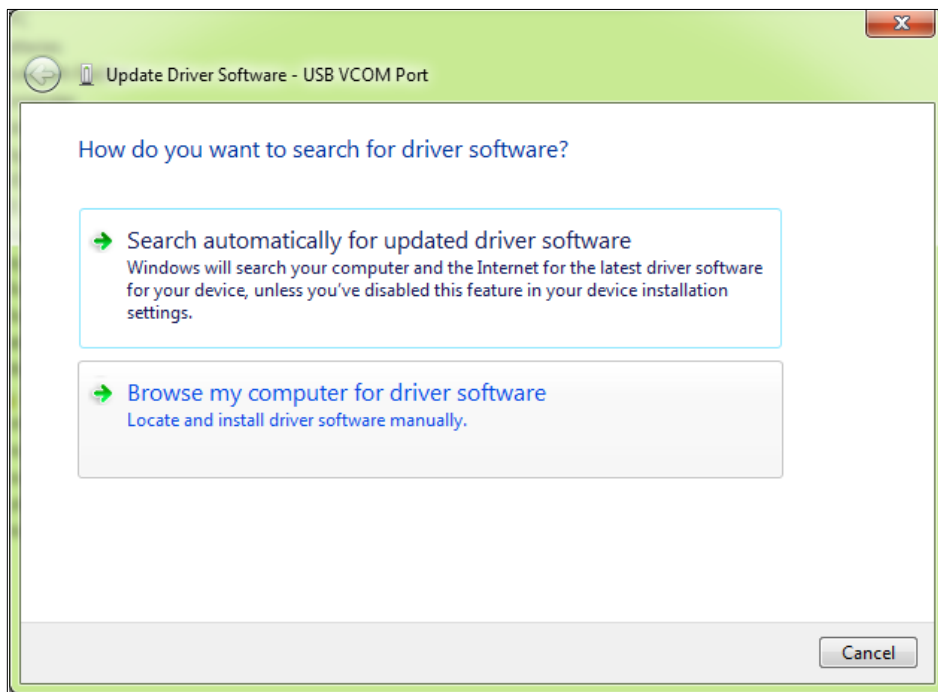
Figure 15

2. On the Device manager, select **USB VCOM Port** and right click. In the context menu, select **Update Driver Software**. See Figure 16.



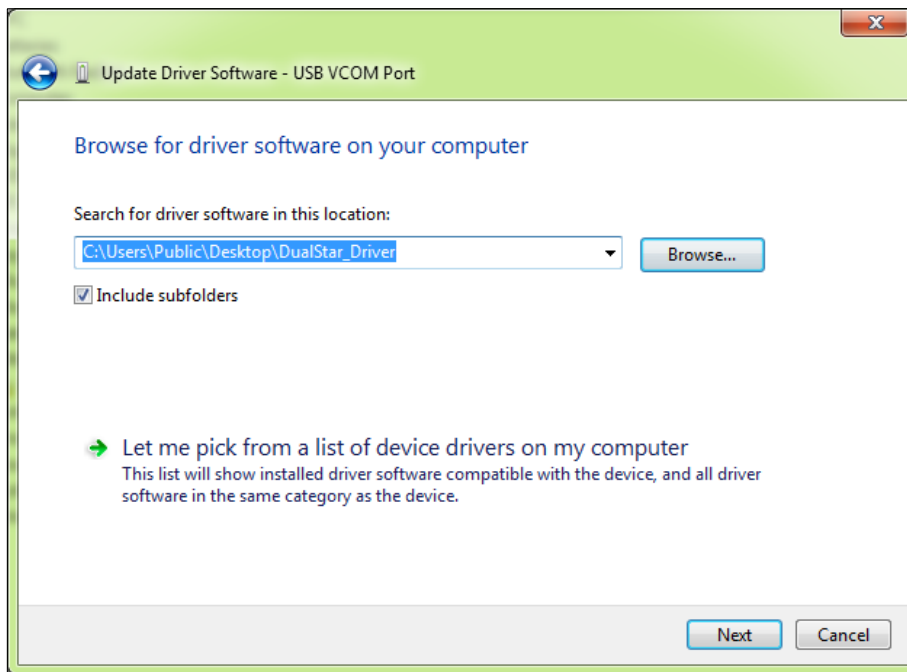
**Figure 16**

3. From the Update Driver Software screen, select **Browse my computer for driver software**. See Figure 17.



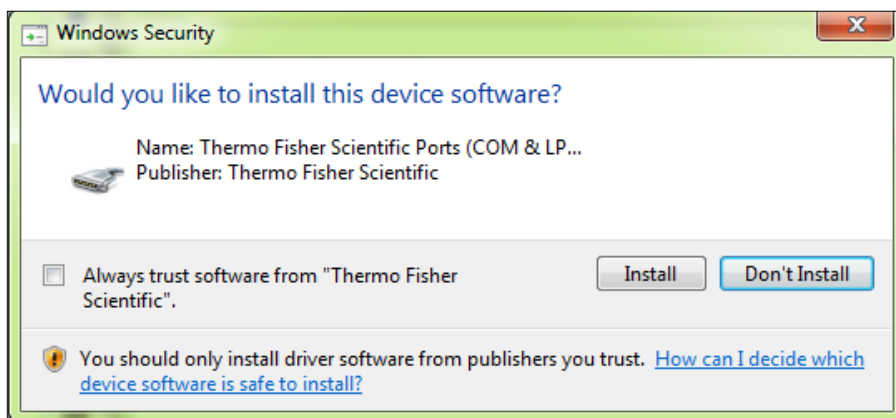
**Figure 17**

4. Navigate and select the DualStar\_Driver folder located at the desktop. Click on **Next** to start the installation. See Figure 18.



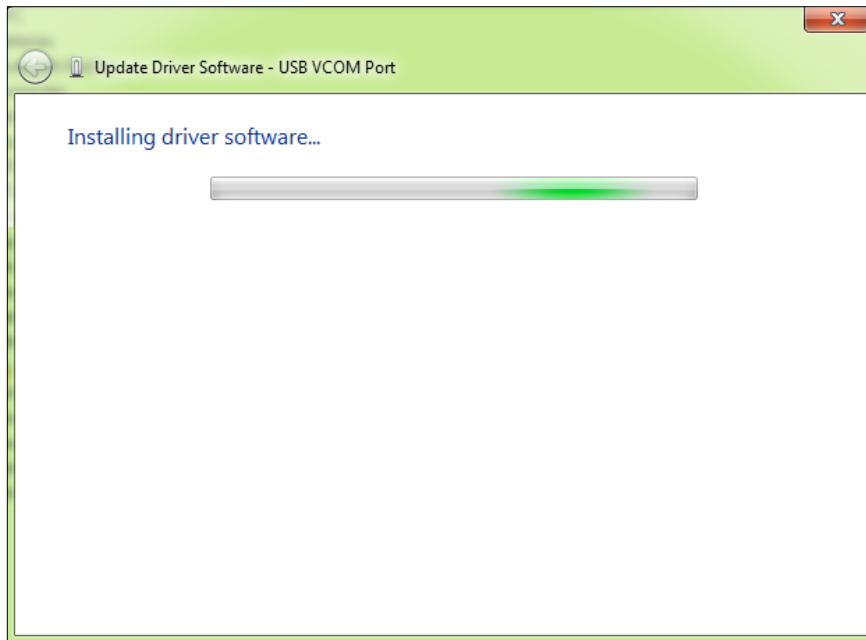
**Figure 18**

5. Select **Install** in the Windows Security screen. See Figure 19.



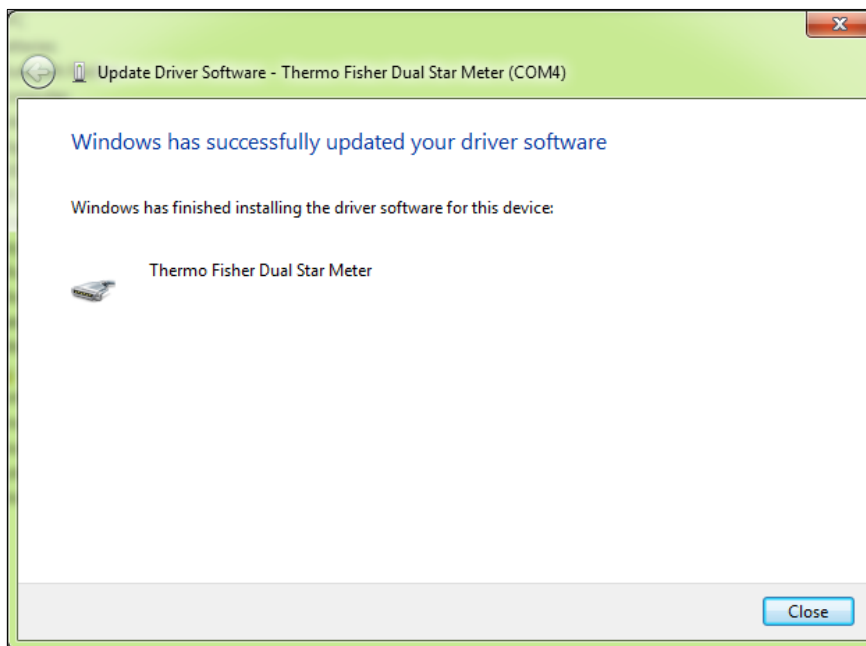
**Figure 19**

6. Wait for the driver installation success message appears. Close the window. See Figure 20.



**Figure 20**

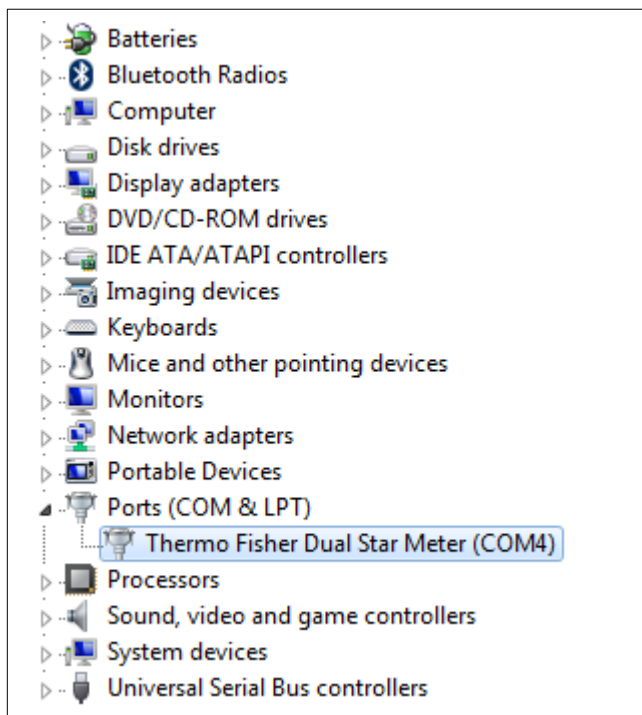
7. Close the following window once the installation completes. See Figure 21.



**Figure 21**

In the event, the driver installation fails on Windows 10, follow the steps given in the Appendix Section to disable security before installation of the driver.

8. The installed Device and the virtual COM port shall appear in the Device manager window under **Ports (COM & LPT)** as Thermo Fisher DualStar Meter (COMx), where 'x' is the COM port number. See Figure 22.



**Figure 22**

## Appendix

The driver installation fails on Windows 10, following steps would temporarily disable security on Windows 10 for installation of the DualStar driver.

1. Press and hold the **Shift** key on your keyboard and click the **Restart** button.
2. Choose **Troubleshoot > Advanced options > Startup Settings** and click the **Restart** button.
3. Press and hold **F7** while the computer restarts.
4. When your computer restarts you'll see a list of options. Select **Disable Driver Signature Enforcement**.
5. Your computer will now restart and you'll be able to install the driver following the above steps.
6. Restart the PC once the installation completes, so that the security is re-enabled.

Find out more at [www.thermoscientific.com/water](http://www.thermoscientific.com/water)

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