# APSP Test Studio User manual

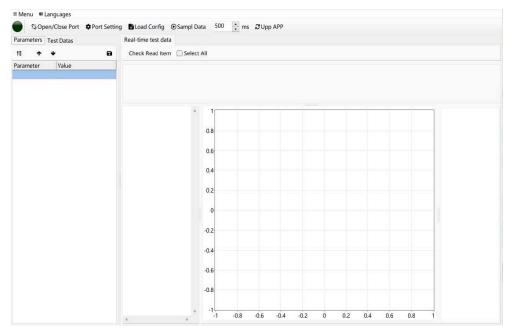
# 1 Software Setup

- Unzip the zipped file.
- > There will be an executable file in the folder.

## 2 Run the software

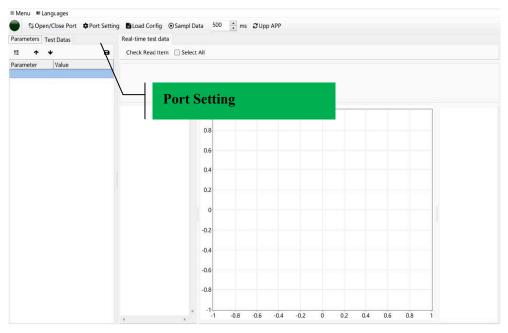
## 2.1 Open the software

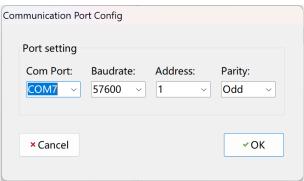
Double click the "AngstPfisterTestStudioForUser.exe" icon, you will have the following window:



## 2.2 Port Setting

➤ Click the "**Port Setting**" button. "Communication Port Config" window will appear:





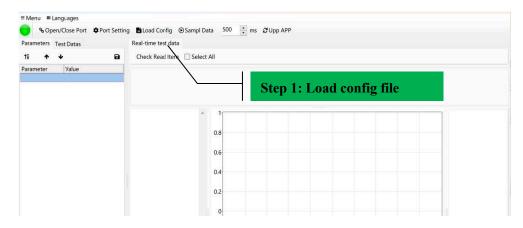
- Select the appropriate COM port;
- ◆ Select "Baudrate" to <u>57600</u>;
- Select "Address" to <u>1</u> (default Modbus address);
- ◆ Select "Parity" to <u>Odd</u>;
- Click "OK" to finish the port setup.

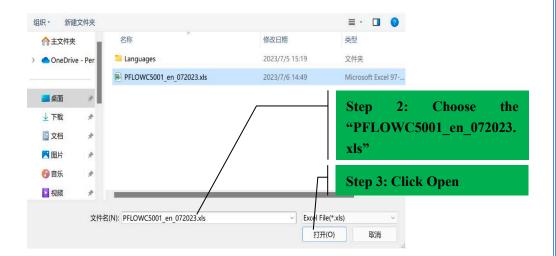
# 2.3 Open Port / Close Port



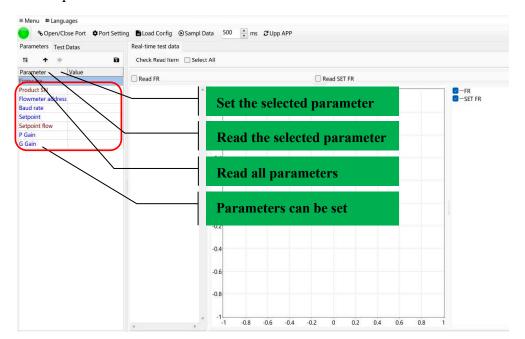
# 3 Operation

#### 3.1 Load config file





Then the parameters which can be set will be shown as below:



Firmware: Firmware version [Read only];

➤ Product SN: Serial number of the product [Read only];

➢ Flowmeter address: The Modbus address, 1~247. Default value is 1;
 ➢ Baud rate: Communication baud rate; Available valve: 0 ~ 5.

0 - 4800; 1 - 9600; 2 - 19200; 3 - 38400; 4 - 57600; 5 - 115200.

> Set point: Set the flow rate in percentage of the full-scale flow;

Available valve:  $0 \sim 65535$ .

 $0 \sim 64000$  corresponding to  $0\% \sim 100\%$ .

➤ Setpoint flow: Read the current flow rate set by the user [Read only];

Available valve:  $0 \sim 110000$ , means of  $0 \sim 110.000$  SLPM.

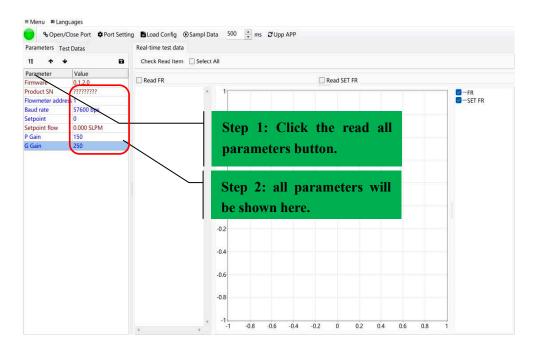
➤ P Gain: PD proportional control of the valve/flow rate;

Available valve:  $0 \sim 9999$ . The default value is 150.

➤ G Gain: PD differential control of the valve/flow rate;

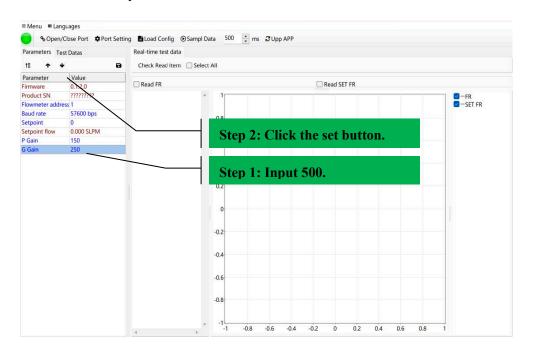
Available valve:  $0 \sim 9999$ . The default value is 250.

#### 3.2 Read all Parameters



#### 3.3 Write (set) parameter

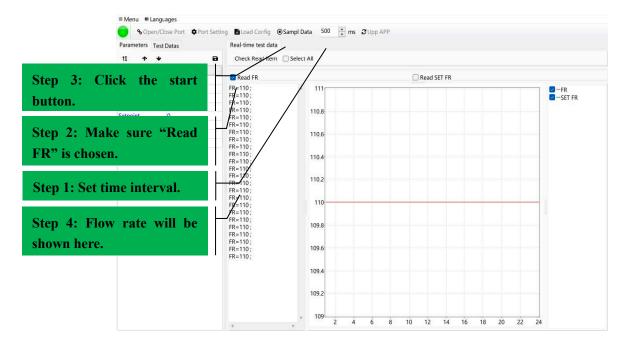
For instance: if you want to set the G Gain to 500:





Note: When the parameter is set OK, please read out to do a double check.

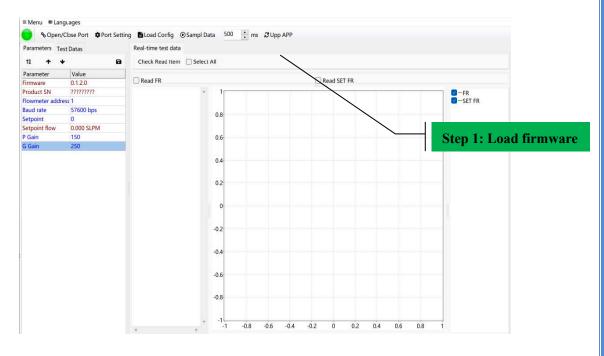
#### 3.4 Read Flow Rate



**Zoom in:** Left click Data Chart, and shift the mouse **from left to right**, the chart which you chose will be zoom in;

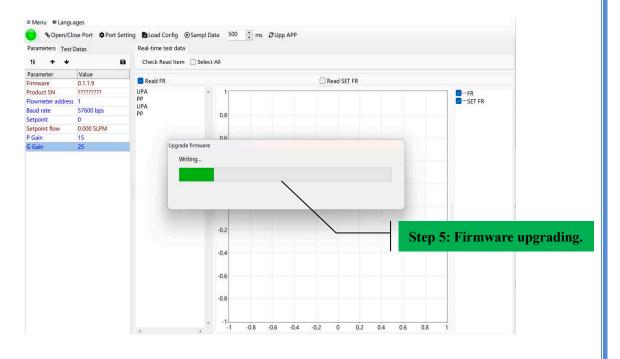
**Zoom out:** Left click Data Chart, and shift the mouse **from right to left**, the chart will get back to the original one.

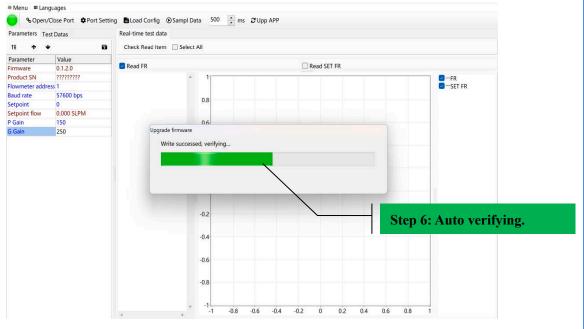
#### 3.5 Firmware upgrade

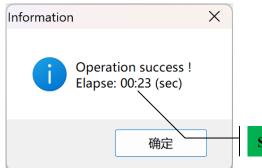












Step 7: Successed.