

# LeegUser Software User's Guide

## I. General Description

**LeegUser** software is used for remote reading, writing, monitoring data. The software communicates with the product by a RS485 interface, can remote read product parameters, monitor and save data. Flexible operation, powerful and reliable.

## II. Install and open the software

### 1. Operating system:

WinXP/Win7/Win10

### 2. Install

The software is portable, you just need to copy the software folder to the specified directory, a total of three files, as shown in Figure 1:

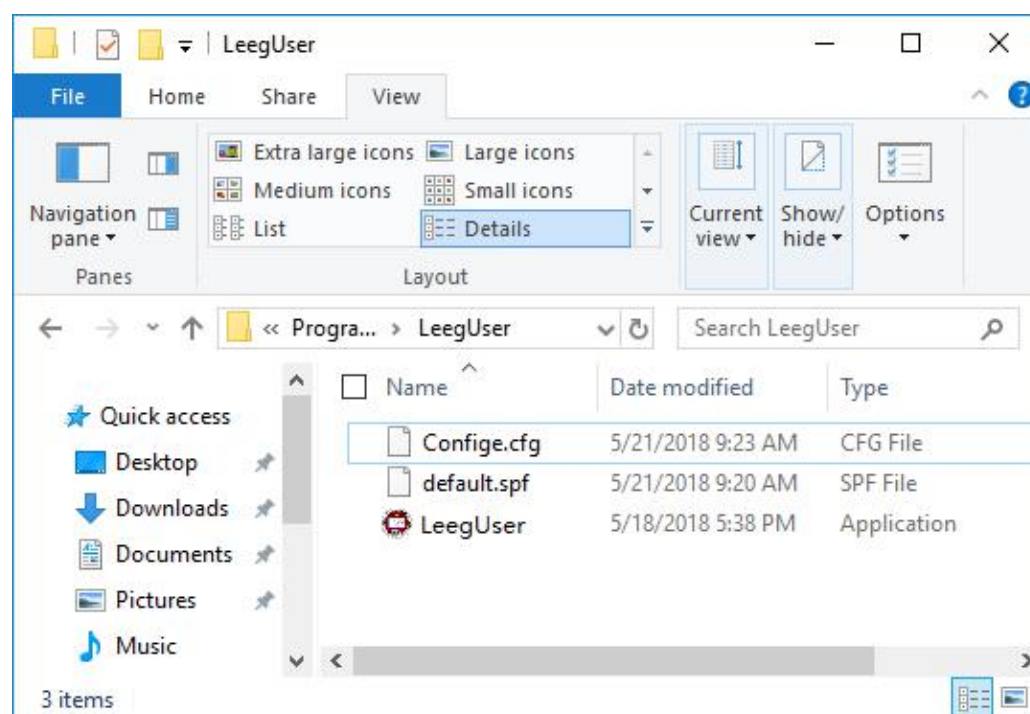


Figure 1

### Warning:

**Be sure not to modify the "Confige" file, it may cause running exception!**

### 3. Open the software

First, confirm that the power line and communication cable has been connected, and then double-click the icon to run the software, display product selection interface, as shown in Figure 2:

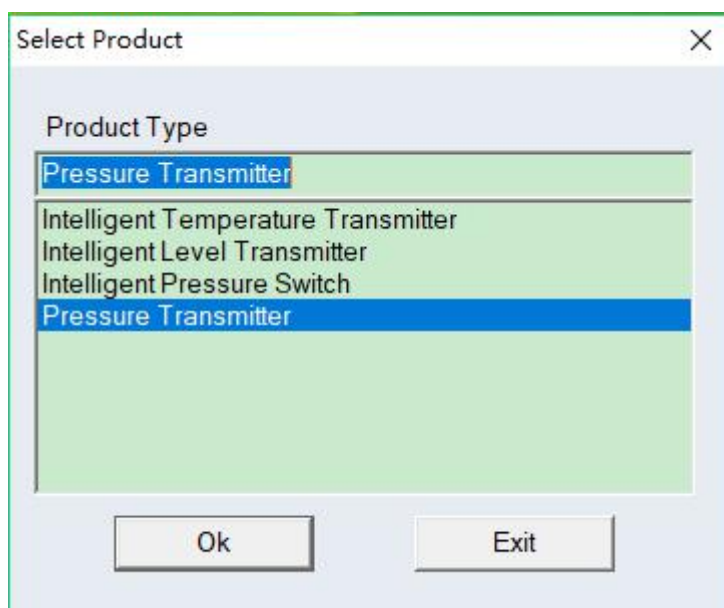


Figure 2

Select the product type and confirm to enter the main interface, as shown in Figure 3:



Figure 3

The main interface is divided into four regions, namely functional operating area (red), monitoring data display area (orange), Operation Help information area (yellow), the operating status area (green), you can achieve file operation, parameter setting, saving data, auxiliary calculations.

### **III. Software Operation**

#### **1. "Open File / Save File"**

Open File---Open the previously stored configuration file and loaded into the software interface.

Save File---Save the current parameter settings to a file.

#### **2. "Reset Product"**

Product Warm Reset.

#### **3. "Search Product"**

For searching online product.

#### **4. "Communication Settings", as shown in Figure 3**

For setting software communication parameters, and modify the communication parameters of the product.

##### **4.1 Parameter settings:**

- ◆ Communication Port Settings: Connect USB-485communication lines, right-click "My Computer", click "Properties", the "Device Manager", select "Ports (COM and LPT)" and click to see the current port number occupied by the communication module, After connecting USB-485 communication lines, if the "Ports (COM and LPT)" option does not appear in the "Device Manager", Please check the communication line and the driver, Try again.
- ◆ Data transmission baud rate : 4.8K、9.6K、19.2K、38.4K、57.6K、115.2K. The default baud rate is 19.2K, optional.
- ◆ Data Bits: 8 data bits are fixed.
- ◆ Parity: no parity, odd parity, even parity optional, defaults no parity.
- ◆ Stop Bits: 1 or 2, defaults 1 bit..
- ◆ Product Address: For changing the slave address, the default slave address is 2, but if you has ordered more than one product in the same batch, for your convenience, we will assign a different slave address to each product before ex-factory. Therefore, you can use the "Search Product" function to determine the address of the online product.
- ◆ Max Address Number: When you perform a search instrument operation, the

software searches for the largest slave address number.

#### 4.2 Buttons And Options

- ◆ Open/Close Port : Open or close port.
- ◆ Change Product Com Para: Write the modified communication parameters (baud rate, data bits, parity, stop bits) to the product.
- ◆ Change Product Communication Settings: when you need to modify and write product communication parameters, you must check this option to activate the "Change Product Com Para" and "Change Product Address" button.
- ◆ Change Slave Address: Write the modified address to the product.
- ◆ Use Default Communication Setting: Restore the default software communication parameters: 19200 baud, no parity, 8 data bits, and 1 stop bit, address is 2.
- ◆ Search Product: For searching online product, when the search is finished, all online slave number will be displayed in a light blue background, the current communications slave number will be become a green background, the default slave address is 2, operator can select the address freely. After the search, when reading or writing data, the software remains communicate with the previously selected slave except multi-slave sampling operations. For example , if the address 5 has been selected , when the search is finished, the software detected addresses are 3,4,5 three online product. Next when the operator performs reading and writing operations, the number 5 will still be set as the slave address to send commands from the software, so you can normal communication; if the address 1 has been selected, next when the operator performs reading and writing operations, the number 1 will still be set as the slave address to send commands, so a communication failure will be occurred since the address 1 slave have been not connected. **Therefore, before the communication start, you must make sure the slave address is valid.**

#### 4.3 Modify product communication parameters steps:

- ① .First, according to the product's communication parameter configuration software interface communication parameters, and perform "Close port" and

then click "Open port" makes the software communication parameters take effect.

- ② . Perform "Search Product" or reading operations to confirm whether the normal communication between software and product.
- ③ . Check the "Change Product Communication Settings "option, select the new communication parameters in the interface, click "Write Com Para to Product "button.
- ④ . Software pop-up "Communication parameters changed successfully!" dialog box which means the operation is successful. So far the product communication parameters modified successfully.

#### 5."Product Information", as shown in Figure 4

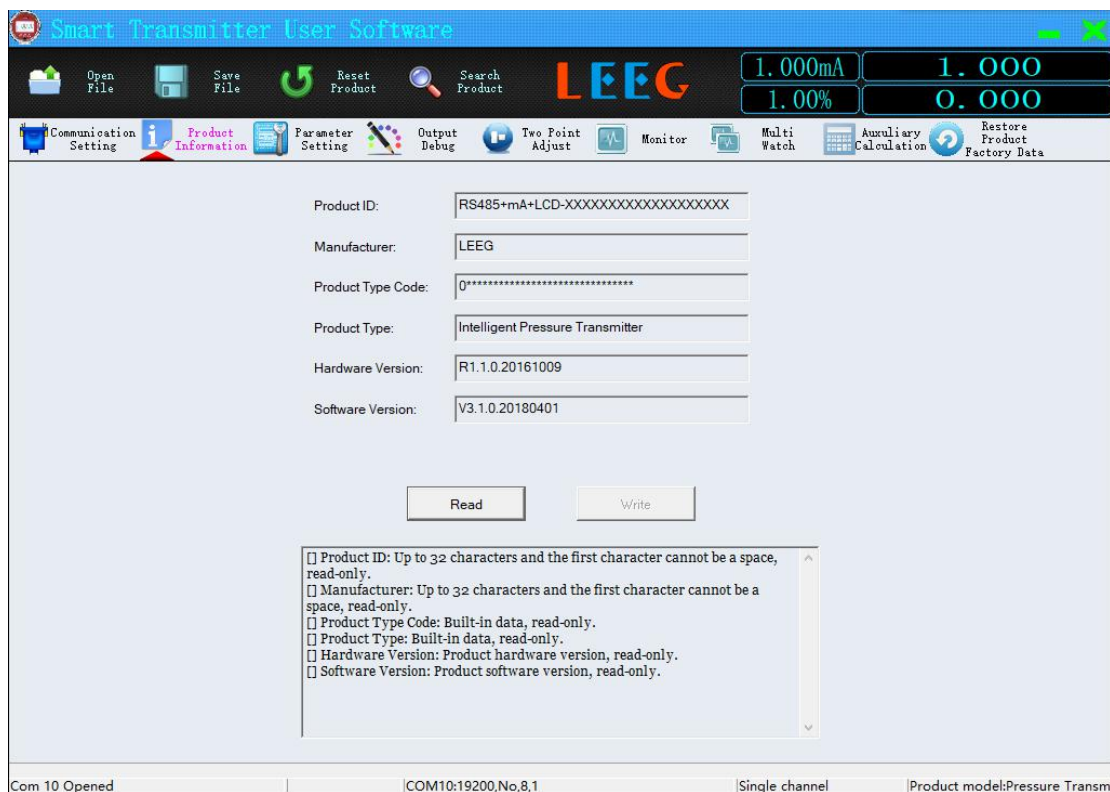


Figure 4

All parameters on this tab are read-only.

#### 6."Parameter Settings", as shown in Figure 5

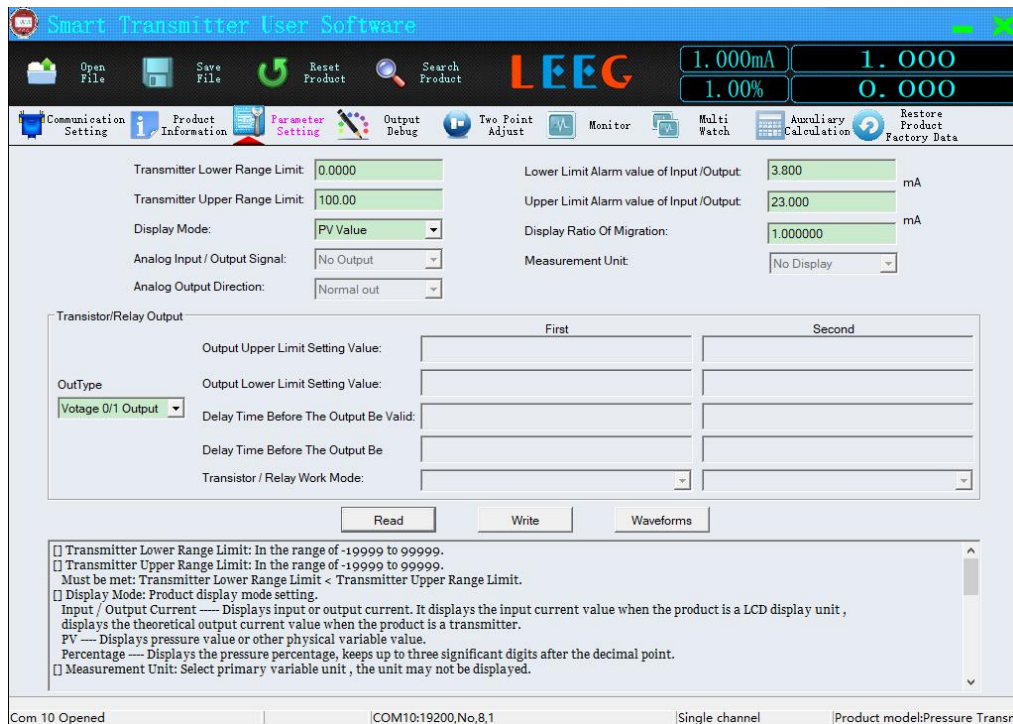


Figure 5

## 6.1 Basic Parameters

- ◆ Transmitter Lower Range Limit: In the range of -19999 to 99999.
- ◆ Transmitter Upper Range Limit: In the range of -19999 to 99999.
- ◆ Display Mode: Product display mode setting.
- ◆ Analog Output Signal: product analog output signals, support 4-20mA , 0-5V and no analog out.
- ◆ Analog Output Direction: This parameter can be used with "Analog Output Signal" parameter together to achieve 4 ~ 20mA, 20 ~ 4mA, 0 ~ 5V, 5 ~ 0V any one output signal.
- ◆ Measurement Unit: Select primary variable unit, the unit may not be displayed.
- ◆ Lower Limit Alarm Value of Output: The parameter is valid only in 4~20mA output, the range of the parameter is 3.500mA ~ 3.800mA, default value is 3.8000mA.
- ◆ Upper Limit Alarm Value of Input/Output: The parameter is valid only in 4~20mA output, the range of the parameter is 20.800mA ~ 24.000mA, default value is 23.000mA.
- ◆ Display Ratio Of Migration: A scale factor, pressure value can be converted to the level value by setting the factor as liquid density , does not change the loop current ,default value is 1.000.

## 6.2 Transistor / Relay Output parameters

**Note: The following parameters are valid only for some products, depending on whether the product has this function!**

- ◆ Output Upper Limit Setting Value: N-channel transistor / relay output upper limit setting value, range: full scale measurement range of products.
- ◆ Output Lower Limit Setting Value: N-channel transistor / relay output lower limit setting value, range: full scale measurement range of products.
- ◆ Delay Time Before The Output Be Valid: Delay time before N-channel transistor / relay out be effective, range: 0.0 ~ 60.0S.
- ◆ Delay Time Before The Output Be Reset: Delay time before N-channel transistor / relay out be reset, range: 0.0 ~ 60.0S.
- ◆ Transistor / Relay Work Mode: N-channel transistor / relay working mode, refer to

Figure 6:

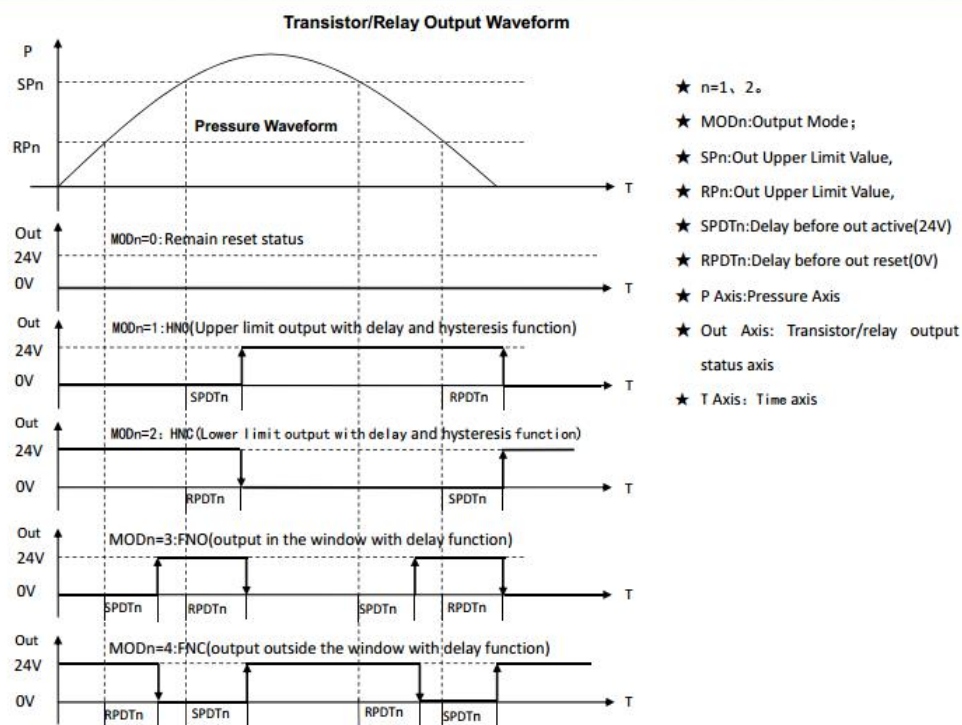


Figure 6



## 7. "Output Debugging ", as shown in Figure 7

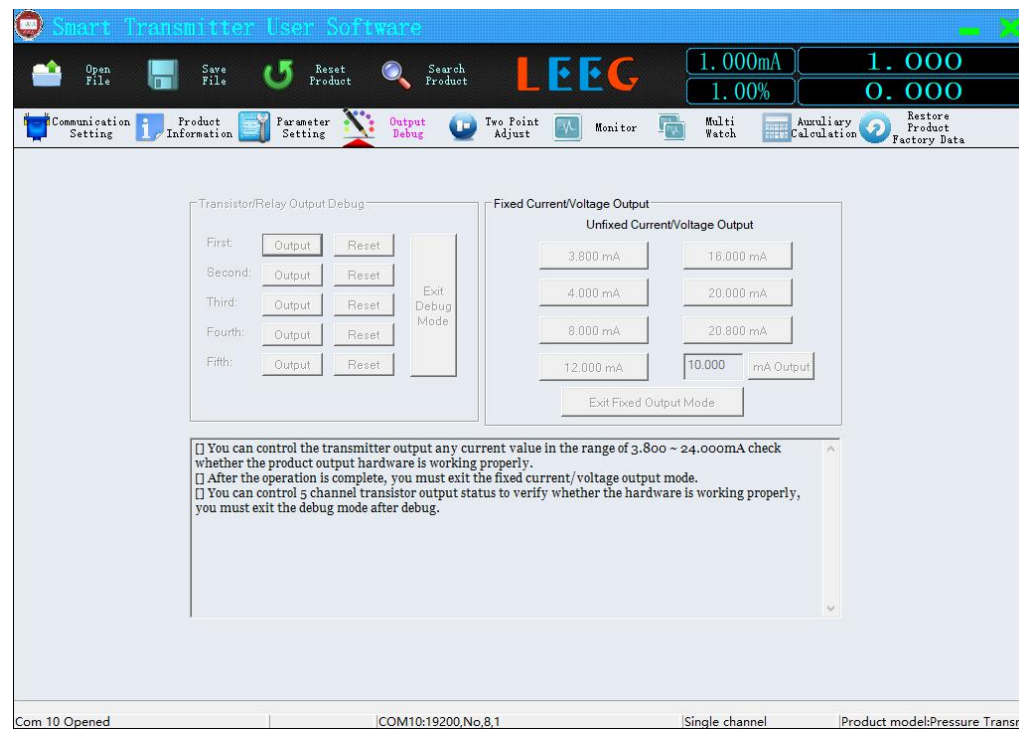


Figure 7

### 7.1 Transistor / Relay /Output Debugging

For with the output transistor / relay function products, you can use this function to manually control all N-channel transistor / relay "output active" or "output reset" state, to verify that the hardware is functioning properly, to quickly resolve system failures.

### 7.2 Fixed Current Output

This function can be used to manually control the any output current between 3.800mA and 24.000mA, to verify whether the analog output hardware is functioning properly to quickly resolve system failures.



## 8. "Two Points Adjust", as shown in Figure 8

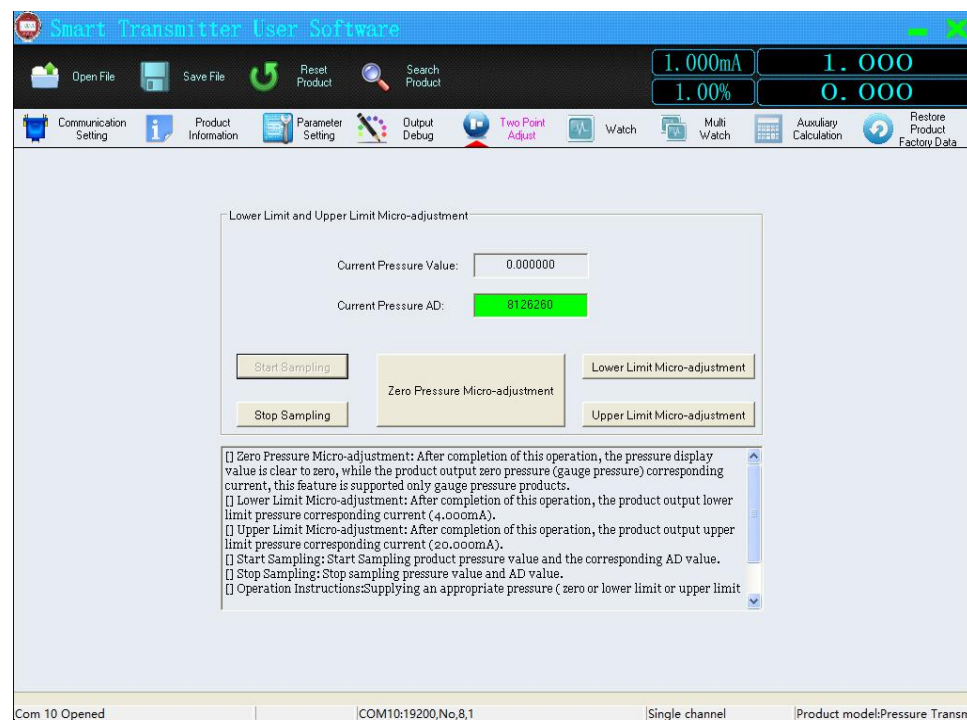


Figure 8

- ◆ Zero Pressure Micro-adjustment: After completion of this operation, the pressure display value is clear to zero, while the product output zero pressure (gauge pressure) corresponding current, this feature is supported only gauge pressure products.
- ◆ Lower Limit Micro-adjustment: After completion of this operation, the product output lower limit pressure corresponding current (4.000mA).
- ◆ Upper Limit Micro-adjustment: After completion of this operation, the product output upper limit pressure corresponding current (20.000mA)
- ◆ Operation Instructions:  
Supplying an appropriate pressure(zero or lower limit or upper limit ) for the product, click "Start Sampling" and observe "Current Pressure AD" data, when the data background turns green, means that the pressure is stable, then make the appropriate micro-adjusting operations.

9. Watch, as shown in Figure 9

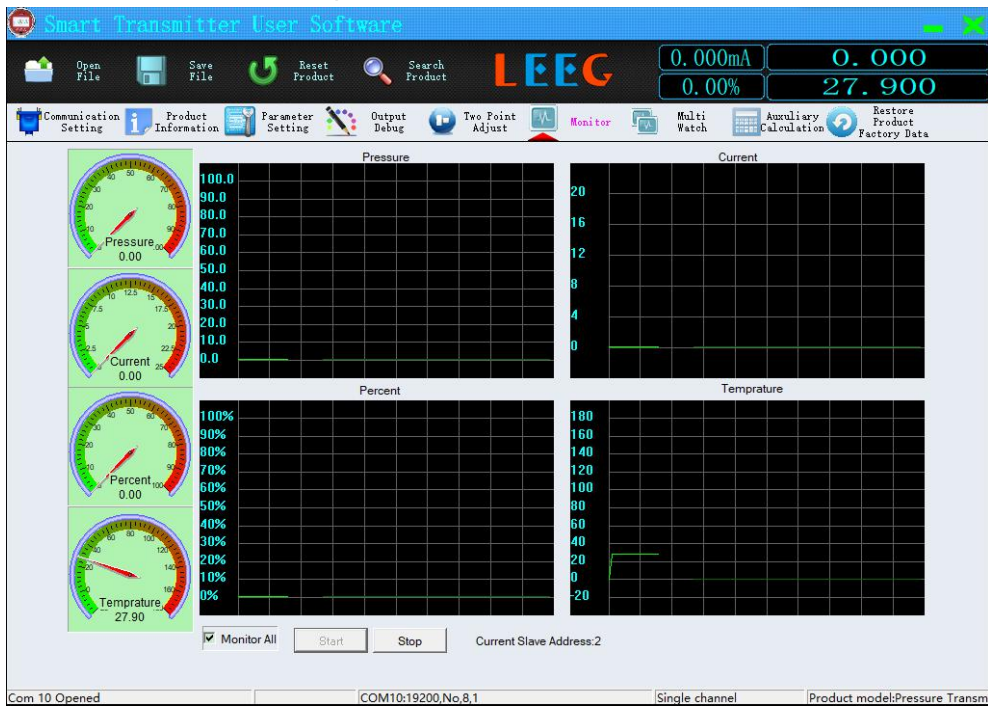


Figure 9

You can independently monitor the pressure, current, percentage, temperature, can also check the "Monitor All" in order to monitor all variables.

Current Slave Address: Slave address of being monitored product

10. "Multi-Watch", as shown in Figure 10

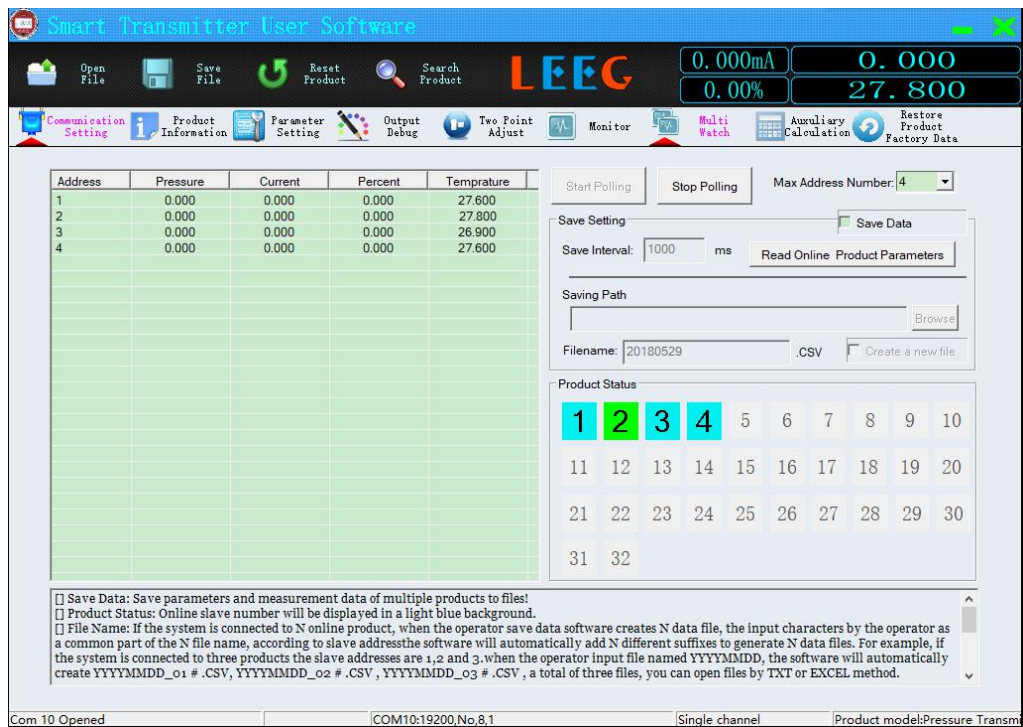


Figure 10

## 10.1 Buttons and Options

- ◆ Start Polling: Software begins polling all online product's data.
- ◆ Stop Polling: Software stops polling all online product's data.
- ◆ Max Address Number : When you perform a search instrument operation, the software searches for the largest slave address number.
- ◆ Save Data: After checking this option, the software will save the product data for multiple files.
- ◆ Save Interval: Product data interval to save the file.
- ◆ Read Online Product parameters : For reading all online product parameters, ready to create the data file.
- ◆ Saving Path: Data file directory.
- ◆ File Name: If the system is connected to N online product, when the operator save data software creates N data file, the typed characters by the operator as a common part of the N file name, according to slave address the software will automatically add N different suffixes to generate N data files. For example, if the system is connected to three products the slave addresses are 1, 2 and 3. When the operator input file named YYYYMMDD, the software will automatically create YYYYMMDD\_01 # .CSV, YYYYMMDD\_02 # .CSV , YYYYMMDD\_03 # .CSV , a total of three files, you can open files by TXT or EXCEL method.
- ◆ Create New File: Before saving the data, you can create a new file by checking this option. Otherwise, if the file directory where you saved the same file already exists, the software will save the additional data to the previous same file.
- ◆ Product Status: Online slave number will be displayed in a light blue background.

## 10.2 Multi-Watching Procedure

- ①. Set the "Max Address Number ", search all online instrument.
- ②. Check the "Save Data" option, set "Saving Interval", "Filename", "Saving Path", "Create New File" option.
- ③. Click on the "Read Online Product Parameters" button.

- ④. Click on "Start Polling". The software will polling all online product and save data to a file.

## 11. "Auxiliary Calculation", as shown in Figure 11

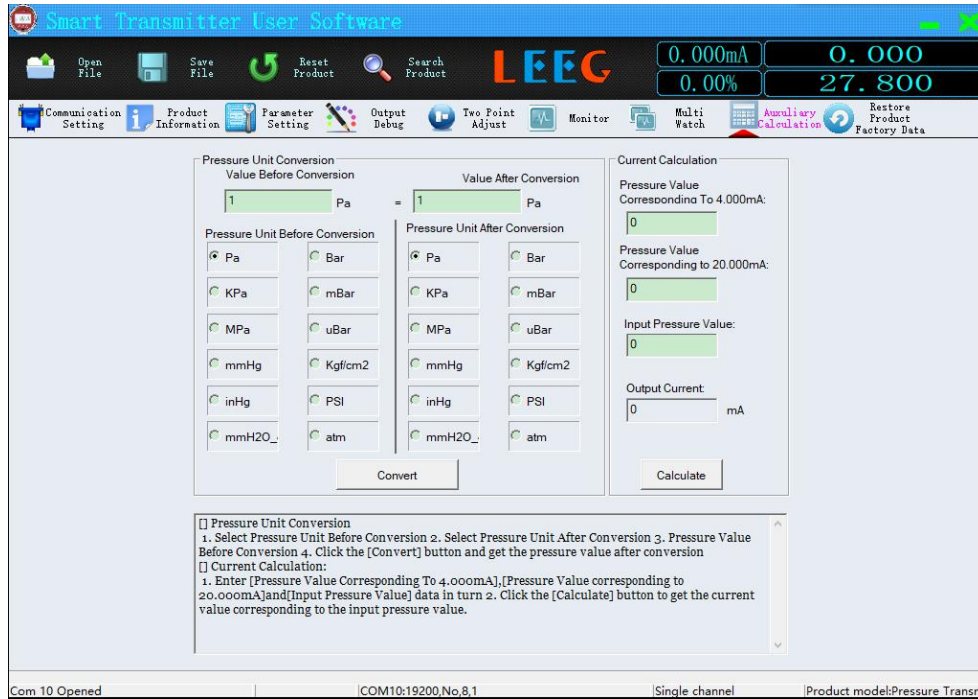


Figure 11

### ◆ Pressure Unit Conversion

- ①. Select "Pressure Unit before Conversion"
- ②. Select "Pressure Unit after Conversion"
- ③. Input "Pressure Value before Conversion"
- ④. Click the "Convert" button and get the pressure value after conversion

### ◆ Current Calculation

- ①. Enter "Pressure Value Corresponding to 4.000mA", "Pressure Value corresponding to 20.000mA" and "Input Pressure Value" data in turn.
- ②. Click the "Calculate" button to get the current value corresponding to the input pressure value.

## 12. "Restore Product Factory Data", as shown in Figure 12

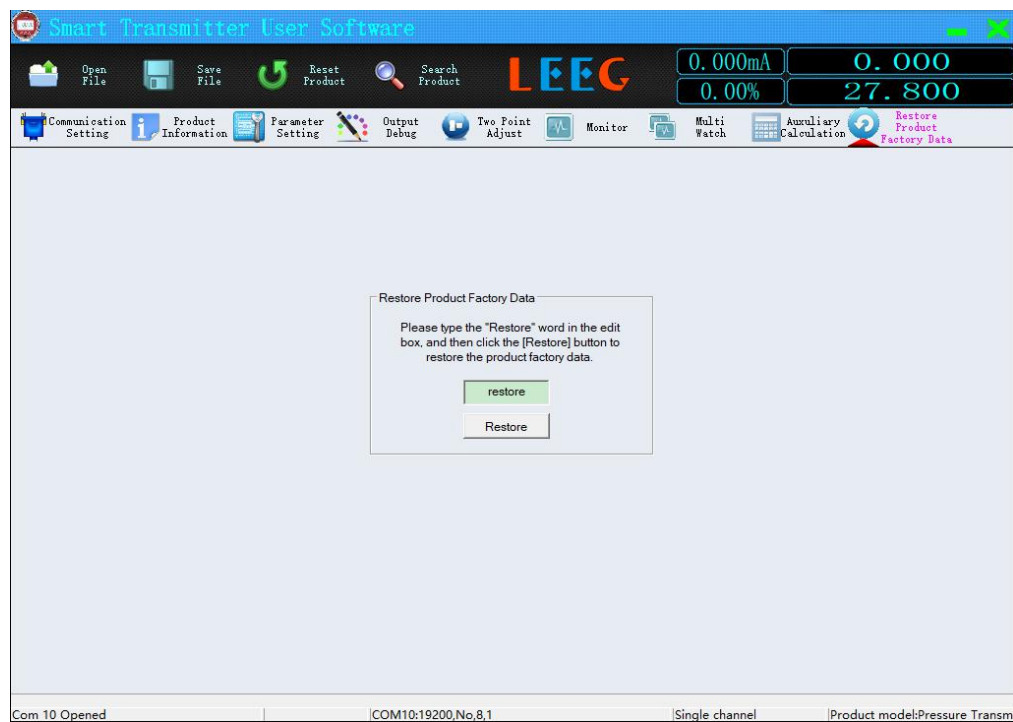


Figure 12

Please type the "Restore" word in the edit box, and then click the "Restore" button to restore the product factory data.