

# **Operating Instructions of PROFINET Displacement Sensor**

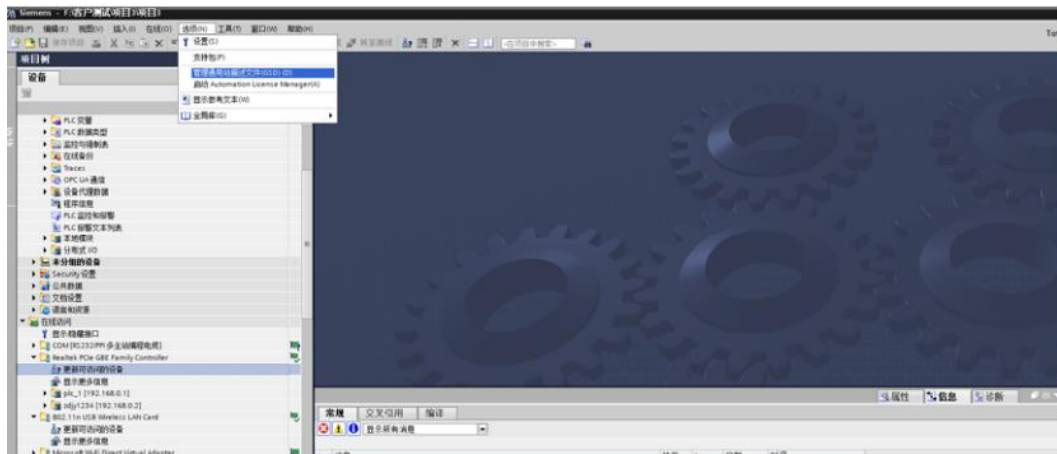
Hangzhou Zheda Jingyi Electromechanical Technology Corporation Limited

# 一. Siemens TIA Portal Installation

See Siemens Installation Manual for details.

## 二. Install the GSDML File

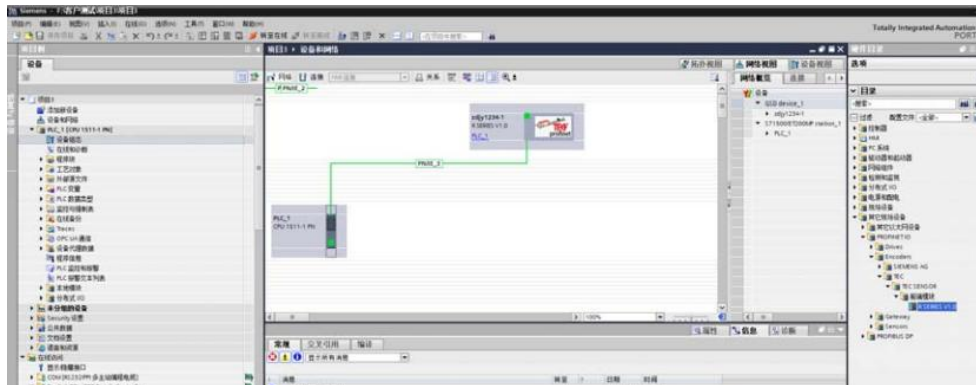
New TIA portal project.



Option > General Station Description (GSD)



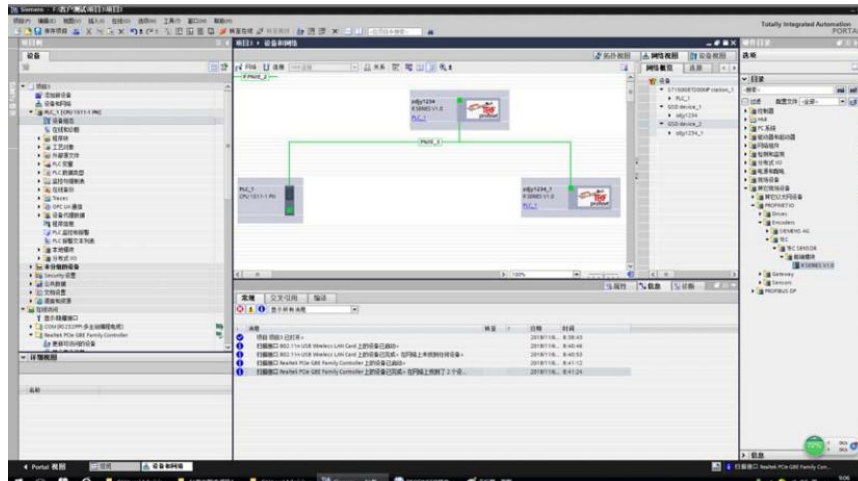
## 三. Configure PROFINET Network



Open the device group diagram and drag in the sensor module under Network view. Look for the TEC sensor module under the rightmost hardware module. Note: Check the filter option to cancel.



Sensor Distribution IO Programmable Logic Controller (PLC)



Download the configuration to PLC.

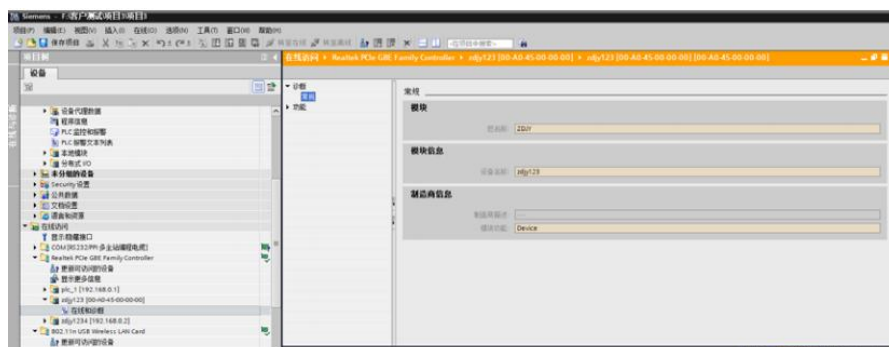
## 四.Assign Sensor Names.

The names of the sensors dragged into the network are ZDJY1234 and ZDJY1234\_1 to assign the name to the actual sensor.



Project Tree-> Online Access-> Physical Wired Network Card-> Double-click Update Access Device. A PLC and two sensors can be found. As shown above.

Select a sensor, double-click online and diagnostics. As shown in the following figure.



Function-> Assign PROFINET device names.



In the PROFINET device name, change the new device name such as: ZDJY1234\_1

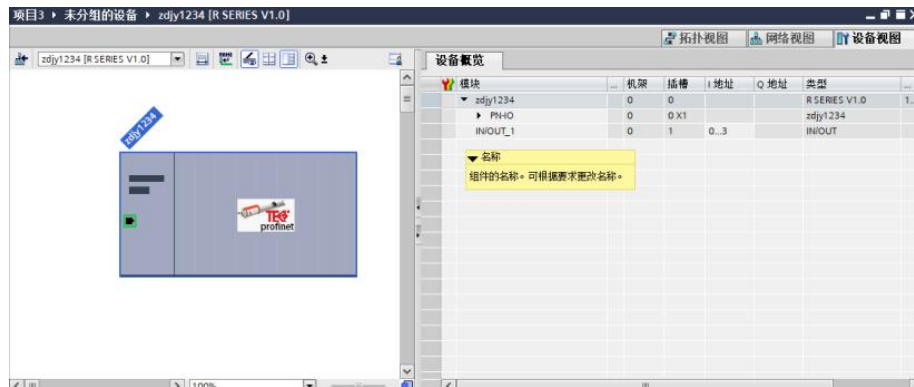
Because all sensor device names are the same as ZDJY1234 before leaving the factory, it is necessary to modify the sensor device names in the same network.



Finally, click Assign Name. The two sensors are combined into the system. The sensor is green and red.

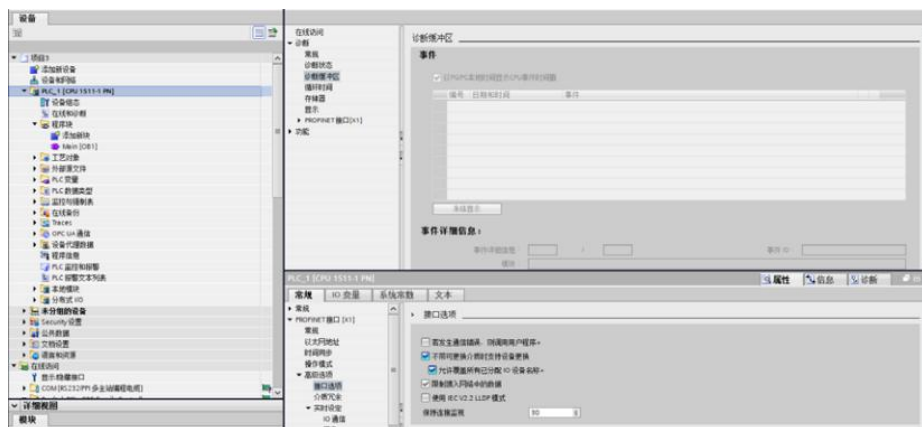
## 五. Read the Sensor Data

Double-click any sensor module in Network view. In the device overview dialog box, the address PID0 corresponds to the displacement value of this sensor.

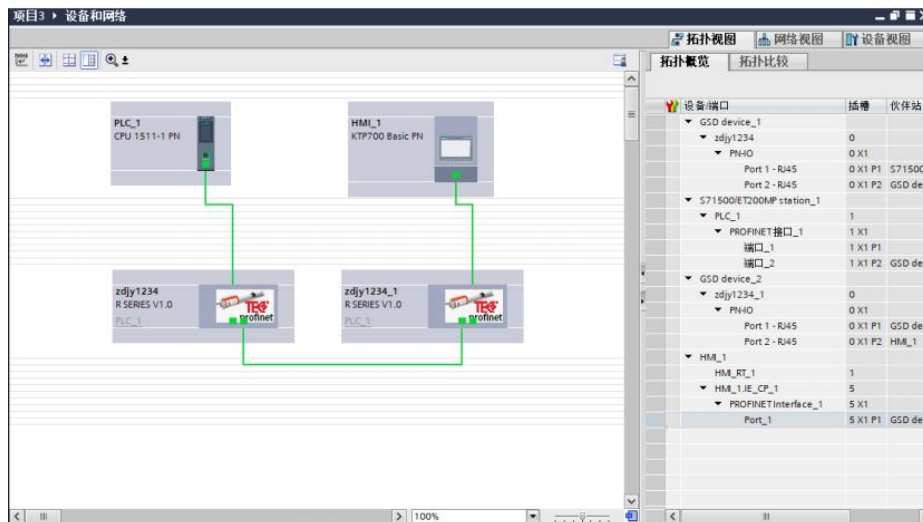


## 六. Sensor Replacement

1. If there is only one sensor in the system, select PLC and tick Allow to overwrite all assigned IO device names under PROFINET Interface-> Advanced Options-> Interface Options. It can be replaced.

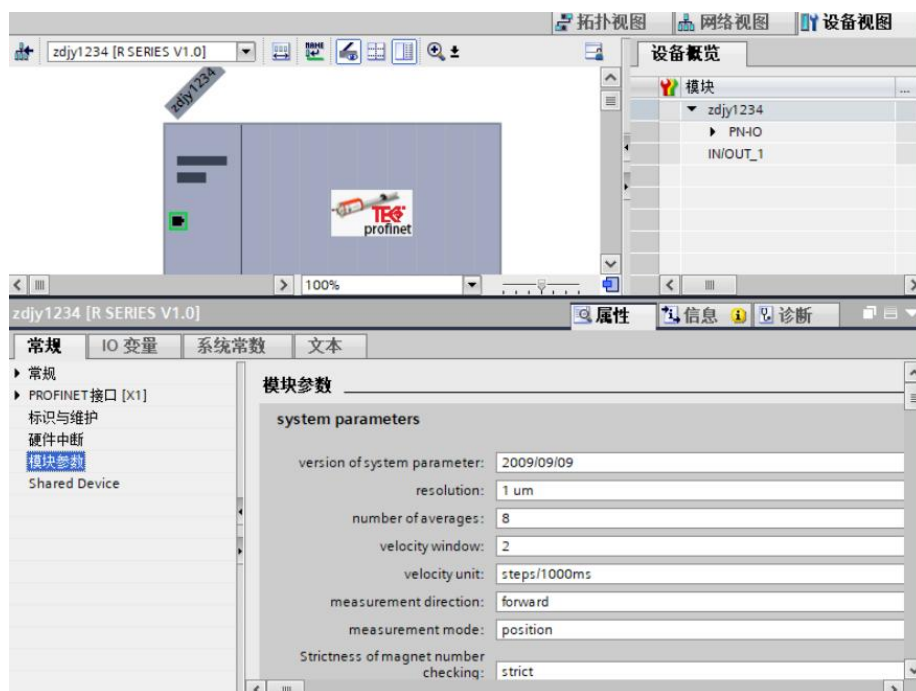


2. If there are 2 or more sensors in the system. The above assignment of device names is one method. The second method is to use topology configuration. In topology view, do the following: Facing the rear end cover of the sensor, the power plug is upward, and the port on the left is Port1, and the port on the right is Port2. The topology view here should correspond to the real object one by one. Download the configuration to PLC, and insert it according to the corresponding when replacing the sensor. The software does not require any settings.



## 七. Sensor Parameter Setting

Double-click any sensor module in the network view, and click "Module Parameters" to open the Setting Parameters interface.



Version of system parameter:

Resolution: 1/2/10/50/100um optional, default 1um;

Number of averages: 1-255 can be set, default 8;

Velocity window: Keep the default;

Velocity unit: Keep the default;

Measurement direction: Forward/reverse can be set, default forward;

Measurement mode: Keep the default;

Strictness of magnet number checking: Keep the default;

## 八. LED Indication

Green light	Red light	Status
Flash	X	Sensor failure
ON	ON	The network cable is not connected normally, etc.
ON	Flash	Unsuccessful configuration (name mismatch, IP address conflict, etc.)
ON	OFF	Configuration is normal

Note: Configuration is normal, PLC alarm, check the magnetic ring and its position, specific alarm information, check in the PLC diagnostic buffer.