User manual ASAIR

Oxygen Sensor Demo Board Operating Instructions



I. Summary

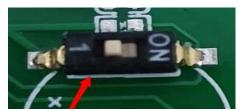
The oxygen sensor demonstration board is a self-made engineering prototype test board of Aosong Electronics. According to the different interfaces, it can be applied to the oxygen sensor of the AO-O2/O3/O7/O8/O9 model to demonstrate the sensor's change with the oxygen concentration. The change of output signal, this operation manual takes the demo board suitable for AO-O9 oxygen sensor as an example, the operation of other types of sensor demo board can refer to this version.

II. Instructions

- 1 Preparation steps
 - 1.1 Check whether the socket of the demo board corresponds to the sensor interface to be detected;
 - 1.2 Need to prepare: Micro-USB data cable, computer, port driver "cp210x", host computer software "Serialport.exe".

2 When use battery

Insert the oxygen sensor to be tested into the socket of the demo board, and turn the DIP switch on the back of the demo board to "1" state:



- 2.2 Short press the "wake" button on the front of the demo board to wake up the screen;
- 2.3 Place the sensor in a well-ventilated environment.
 After 5 minutes of power on, press and hold the "21 %" key to calibrate. After calibration, the screen will display the value in the range of 20.9±0.3;
- 2.4 Change the oxygen concentration of the environment, and check the digital change on the display. This number represents the oxygen concentration of the environment to be measured.

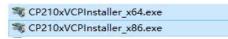


3 When use PC for record

- Connect the demo board to the computer
 - 3.1 through a Micro-USB cable;
 - 3.2 Find the "Silicon Labs CP210x USB to UART Bridge "port on the computer's device manager;



3.3 If this port is not found, you need to select the corresponding driver under the "cp210x" folder for installation;



- 3.4 After installing the driver, open the "Oxygen Sensor Demonstration Board Host Computer" folder, and then open the "Serialport1.exe";
- 3.5 Open the software interface, select the corresponding port, click "Open Port", and the host computer software starts to record data;



- 3.6 After completing the test, you can click "Export" to save the test data.
- 4 After the test, pull out the sensor and turn the DIP switch back to the "ON" state.

III. Precautions

Sampling time: 1s

Automatic off: 5 minutes

■ Do not press the "21%" key when no load

■ Battery: 3V

Micro-USBSupply: 5V

Current: 500mA2



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