

To use APB Analog i/o puts


Using your program in simulate mode will give you an idea of how your program will work. But when you load the program the 4 – 20mA inputs/output will not work. The 0-10 volt ones seem to but may not follow the 0 – 10 volts of the simulation.

For analog inputs, the mode of connection is the same as common analog connection.

See diagrams at end of article.


Analog outputs calibration instruction:

Please follow the steps given below to calibrate analog outputs.

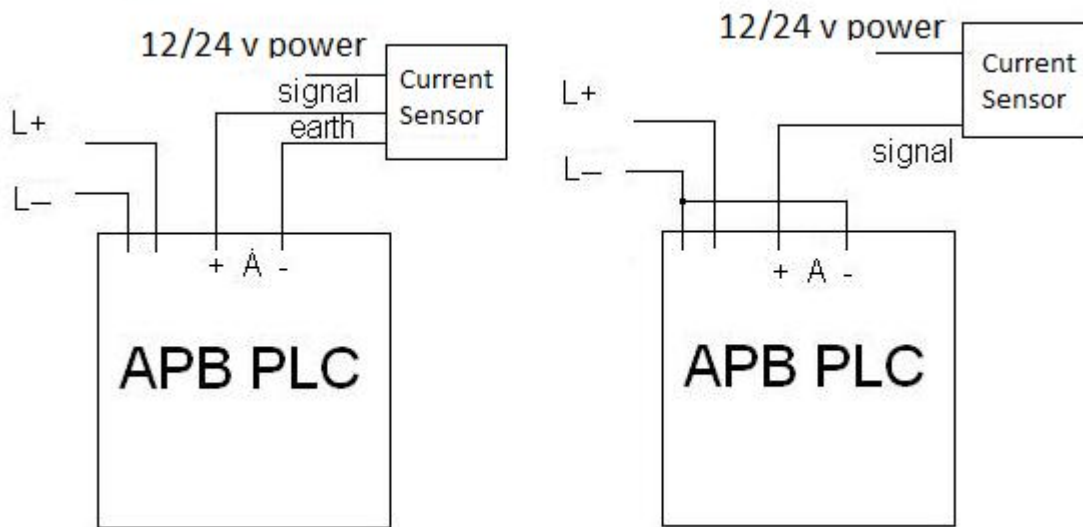
1. Use a multimeter and select current file the red lead is connected with AQ0+ and the black lead is connected with AQ0-.
2. Please power on the APB, then select “- 2. Select 4mA and observe the value in multimeter press “+” or “-” from APB LCD and make the value in multimeter to equal to 4mA or close to 4mA press OK key to confirm. Then success message will be displayed. Move cursor and select 20mA and according to the above method calibrate for 20mA.
- 3. After the analog outputs have been calibrated successfully, APB PLC needs to be powered off and then powered on.

Analog inputs calibration instruction:

It is necessary to calibrate the analog inputs first to get a reference value for each input when using the relevant analog function block. Please follow the steps given below to calibrate analog (0-10 v).

1. First, please power on the APB, then select “- 2. Next, when “minimum” is prompted, input low voltage value to this channel. Press OK key to confirm, then success message will be displayed, and the input value will be identified by Vmin. When ‘maximum’ is displayed, input maximum voltage to this channel. Press OK key to confirm, the success message will be displayed, and the input value will be identified by Vmax. Then input range for Vmin and Vmax is between 0V to 10V.
- 3. After all analog inputs have been calibrated successfully, APB need to be powered off and then back on.
- 4. It`s the same for all other channels that use analog function blocks. If the analog has been calibrated successfully, when using relevant analog function blocks, the analog input value (0V-10V) is not the actual input voltage value, but the calculation result of the math formula: $(V \text{ input} - V_{\min}) / (V_{\max} - V_{\min}) * 10$.

Wiring input 4 – 20 mA



Calibrate input / output 4 - 20mA

