

5A Module 185mV/Amp	20A Module 100mV/Amp	30A Module 66mV per Amp
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Let us assume that the microcontroller you are using has a 10-bit ADC and operates at 5V with a reference voltage of 5V for ADC conversion in that case the microcontroller will read the values of ADC from 0 to 1024.

Then you can use the formulae below to calculate the Output Voltage from ADC values.

$$V_{out} \text{ (mV)} = (\text{ADC Value} / 1023) * 5000$$

After calculating the output voltage we can, calculate the value of current from the voltage using the below formulae

$$\text{Current Through the Wire (A)} = (V_{out}(\text{mv}) - 2500) / \text{Scale factor}$$

Note that the value of scale factor changes for every module based on its range. The values of scale factor for all three modules are given in the specifications above.

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