



Introduction

MB 1 - L 2 A 2 D is one of the analog I/O boards of MERITEK MBs series PLC. For analog output it provides 1 channel of 12-bit (coded in 14 bits) output signal. For safety, the output signal will be automatically forced to zero(0V or 0mA) when the module is not serviced by CPU for 0.5 second. For analog input it provides 2 channels of A/D inputs with 12-bit (coded in 14 bits) resolution. The Input/Output signal types (voltage or current) can be selected by the field wiring.

Specification

Analog Input

Total Channels : 2 Channels

Resolution : 12 bits

Coding Format : 14 bits (0 ~ 16383)

Signal Resolution : 2.44mV(Voltage), 4.88uA(Current)

Registers Occupied : 2 Registers (D4072 、 D4073)

Conversion Time : Updated each scan

Accuracy : $\pm 1\%$

Max. Absolute Input Rating :

$\pm 15V$ (Voltage), 30mA(Current)

Input Impedance : 100K Ω (Voltage), 125 Ω (Current)

Measurement Range : 0 ~ 10V(Voltage)
0 ~ 20mA(Current)

Analog Output

Total Channels : 2 Channel

Resolution : 12 bits

Coding Format : 14 bits (0 ~ 16383)

Signal Resolution : 2.44mV(Voltage), 4.88uA(Current)

Register Occupied : 2 Register (D4076 、 D4077)

Conversion Time : Updated each scan

Accuracy : $\pm 1\%$

Max. and Min. output loading :

Voltage Output : 2K ~ 1M Ω

Current Output : 0 ~ 500 Ω

Output Range : 0 ~ 10V(Voltage)

0 ~ +20mA(Current)

Common Specification

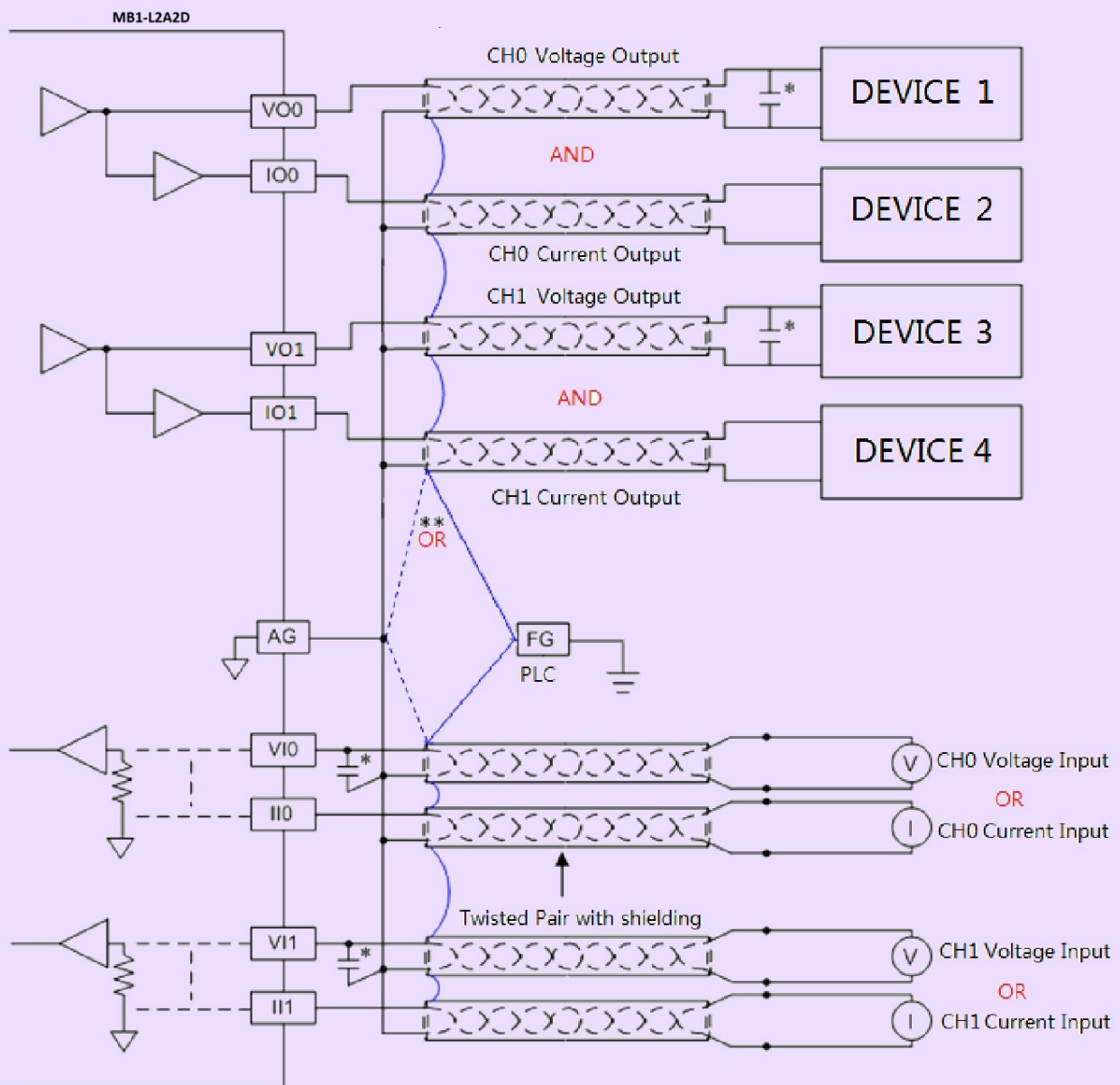
Indicator(s) : No

Internal Power Consumption : 5V, 80mA(Max. Load)

Operating Temperature : 0 ~ 60 $^{\circ}\text{C}$

Storage Temperature : -20 ~ 80 $^{\circ}\text{C}$

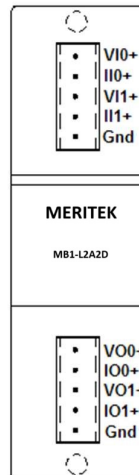
Wiring Diagram



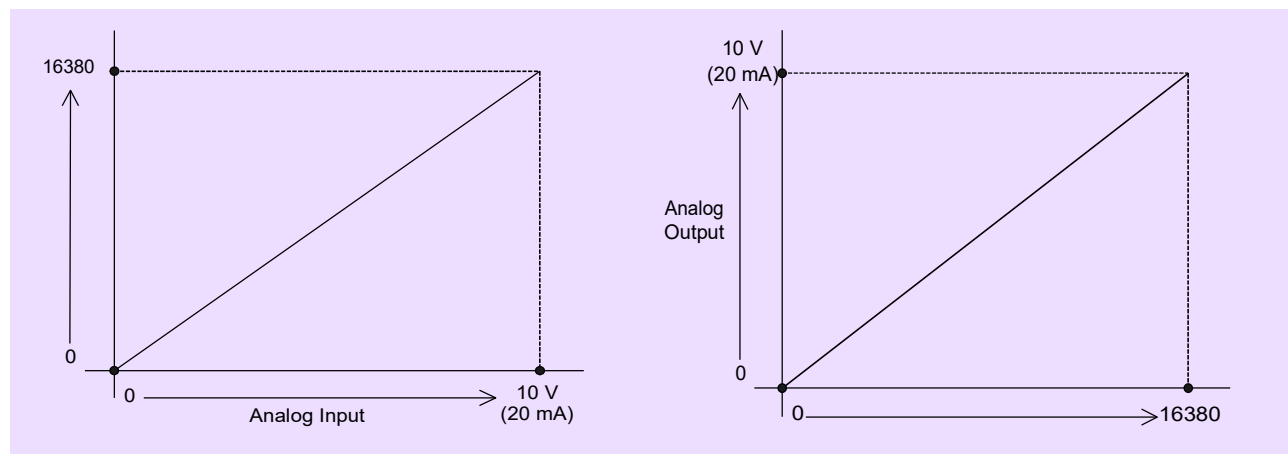
* 0.1 ~ 0.47 uF capacitor (to filter noise) Advice to install, but not necessary !!

** If you like to have Twisted pair with shielding connect to ground , we suggest you to connect FG of PLC,
if you can't connect to the FG of PLC, please connect to AG of module.

Pin Diagram



Characteristics Charts



Registers allocation Map

Register Channel No.		Mapped Register
Analog Input	CH0	D4072 (0 ~ 16383)
	CH1	D4073 (0 ~ 16383)
Analog Output	CH0	D4076 (0 ~ 16383)
	CH1	D4077 (0 ~ 16383)

* Left Side Expansion Module has to add module manually in Winproladder.