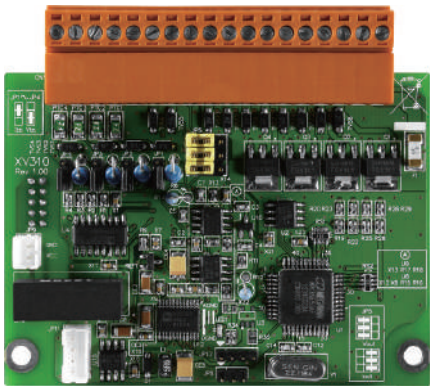


XV310

4-ch AI, 2-ch AO, 4-ch DI and 4-ch DO Expansion Board

Features

- Multifunction (4 AI, 2 AO, 4 DI, 4 DO)
- Individual Channel Configuration
- Jumper Selectable Voltage or Current Input/Output
- Open Wire Detection for Current Output
- Configurable Power-on Value Settings
- Digital Input Channels can be used as 32-bit Counters
- 120 VDC Overvoltage Protection for Analog Input
- 60 VDC Overvoltage Protection for Digital Input
- Overload Protection for Digital Output
- Short-circuit Protection for Digital Output

Introduction

The XV310 is a multifunction expansion board that includes 4 analog input channels, 2 analog output channels, 4 digital input channels and 4 digital output channels. It provides a programmable input range on all analog input channels (+/-1 V, +/-2.5 V, +/-5 V, +/-10 V, +/-20 mA, 0 ~ 20 mA or 4 ~ 20 mA), analog output channels are 12- bit at +/-5 V, +/-10 V, 0 ~ 20 mA or 4 ~ 20 mA. Each analog input channel can be configured for an individual range and provides a high overvoltage protection of 120 VDC. Voltage and current inputs/outputs are jumper selectable.

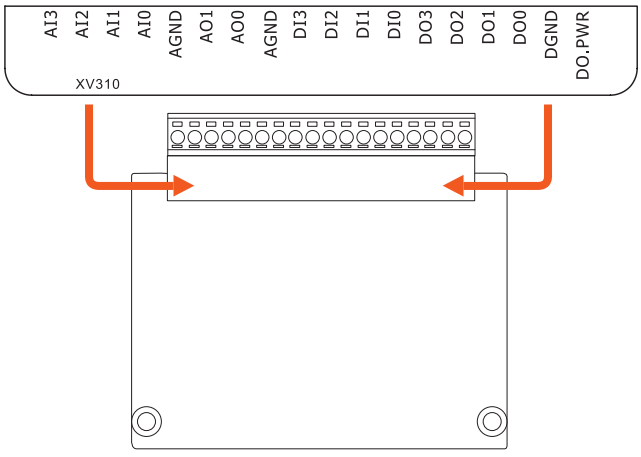
Specifications

Isolation		
Intra-module Isolation		2000 VDC
EMS Protection		
ESD (IEC 61000-4-2)		±4 kV Contact For Each Terminal
		±8 kV Air For Random Terminal
Analog Input		
Channels		4
Type		±1 V, ±2.5 V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)
Resolution		16-bit
Accuracy	Normal Mode	±0.1%
	Fast Mode	±0.5%
Sampling Rate	Normal Mode	10 Hz
	Fast Mode	200 Hz (Total)
Overvoltage Protection		120 VDC
Individual Channel Configuration		Yes
Analog Output		
Channels		2
Type		0 V ~ +5 V, ±5 V, 0 V ~ +10 V, ±10 V, 0 mA ~ +20 mA, +4 mA ~ +20 mA (Jumper Selectable)
Resolution		12-bit
Accuracy		±0.1%
Voltage Output Capability		10 V @ 20 mA
Current Load Resistance		500 Ω
Individual Channel Configuration		Yes

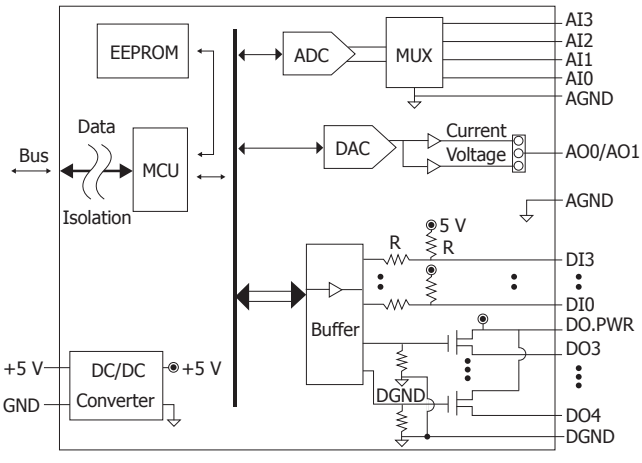
Digital Input/Counter		
Channels		4
Dry Contact	Type	Source
	ON Voltage Level	Close to GND
	OFF Voltage Level	Open
Max. Counts		32-bit (0~4,294,967,285)
Frequency		50 Hz
Min. Pulse Width		10 ms
Overvoltage Protection		60 VDC
Digital Output		
Channels		4
Type		Source
Load Voltage		+10 to +40 VDC
Max. Load Current		650 mA/channel
Overvoltage Protection		47 VDC
Overload Protection		Yes
Short-circuit Protection		Yes
Power-on Value		Yes, Programmable
COM Ports		
Ports		1 x RS-232
Baud Rate		115200 bps
Data Format		N, 8, 1
Protocol		Modbus/RTU
Power		
Consumption		1.6 W Max.
Powered from Terminal Block		5 VDC
Mechanical		
Dimensions (mm)		59 mm x 82 mm x 13 mm (W x L x H)
Environmental		
Operating Temperature		-25 ~ +75 °C
Storage Temperature		-30 ~ +80 °C
Humidity		10 ~ 90% RH, Non-condensing

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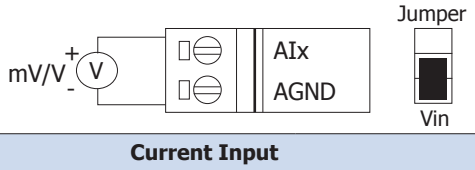
Pin Assignments

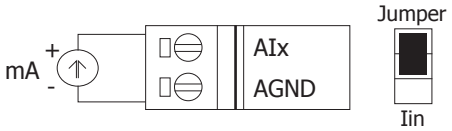


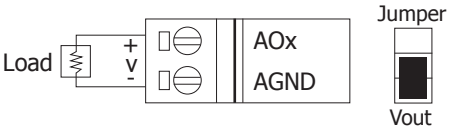
Internal I/O Structure

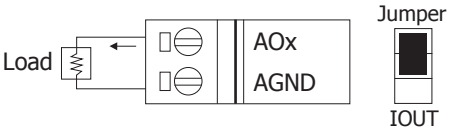


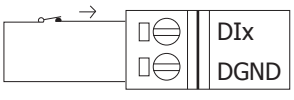
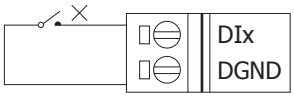
Wire Connections

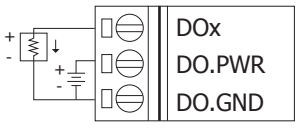
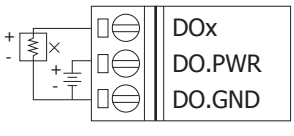
Voltage Input


Current Input


Voltage Output


Current Output


Digital Input/ Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact (Source)		

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Drain (Source)		

Ordering Information

XV310 CR	4-ch AI, 2-ch AO, 4-ch DI (Dry) and 4-ch DO (Source, PNP, 10 ~ 40 VDC) Expansion Board (RoHS)

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