



XV303

4-ch AO, 4-ch DI and 4-ch Power Relay
Expansion Board

Features

- Multifunction (4 AO, 4 DI, 4 Relay)
- Individual Channel Configuration for Analog Output
- Jumper Selectable Voltage or Current Output
- Open Wire Detection for Current Output
- Configurable Power-on Value Settings
- 70 VDC Overvoltage Protection for Digital Input



Introduction

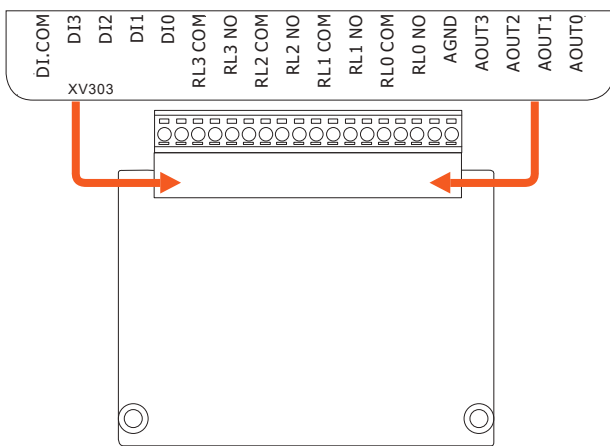
The XV303 is a multifunction expansion board that includes 4 Analog Output channels, 4 Digital Input channels and 4 Form A Relay Output channels. The Analog Output channels are 12-bit at ± 5 V, ± 10 V, $0 \sim +20$ mA or $+4 \sim +20$ mA, and voltage and current outputs are jumper selectable. The XV303 also provides options for configuring power-on values for the Analog Output and Digital Output. 4 kV ESD protection and 2000 VDC intra-module isolation are also provided to enhance noise immunity capabilities in industrial environments.

Specifications

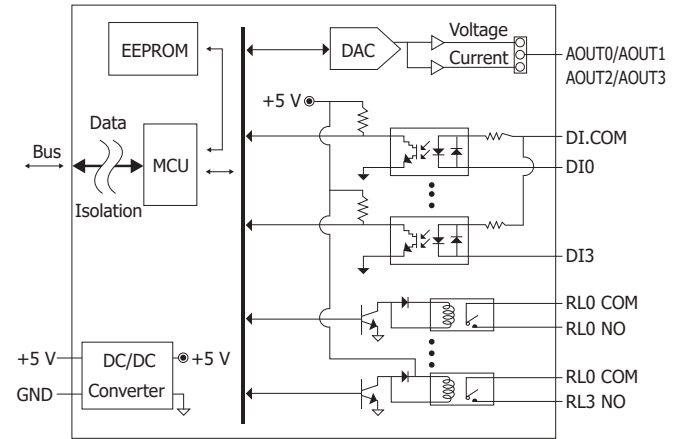
Isolation		
Intra-module Isolation	2000 VDC	
EMS Protection		
ESD (IEC 61000-4-2)	± 4 kV Contact For Each Terminal	
	± 8 kV Air For Random Terminal	
Analog Output		
Channels	4	
Type	0 V \sim +5 V, ± 5 V, 0 V \sim +10 V, ± 10 V, 0 mA \sim +20 mA, +4 mA \sim +20 mA (Jumper Selectable)	
Resolution	12-bit	
Accuracy	$\pm 0.1\%$	
Voltage Output Capability	10 V @ 20 mA	
Current Load Resistance	500 Ω	
Individual Channel Configuration	Yes	
Power on Value	Yes	
Digital Input/Counter		
Channels	4	
Type	Wet Contact, Sink/Source	
Wet Contact	ON Voltage Level	$+3.5 \sim +50$ VDC
	OFF Voltage Level	+1 VDC Max.
Max. Counts	32-bit (0 \sim 4, 294, 967, 285)	
Frequency	50 Hz	
Min. Pulse Width	10 ms	
Input Impedance	10 K Ω , 0.5 W	
Overvoltage Protection	70 VDC	

Relay Output		
Channels	4	
Type	Power Relay	
Form A Relay	Contact Material	Silver Cadmium Alloy
	Contact Rating	6 A @ 35 VDC 6 A @ 240 VAC
	Operate Time	5 ms (typical)
	Release Time	1 ms (typical)
	Electrical Endurance	1×10^5 ops.
Mechanical Endurance	30×10^6 ops.	
Power-on Value	Yes	
COM Ports		
Ports	1 x RS-232	
Baud Rate	115200 bps	
Data Format	N, 8, 1	
Protocol	Modbus/RTU	
Power		
Consumption	2.9 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	$-25 \sim +75$ $^{\circ}\text{C}$	
Storage Temperature	$-30 \sim +80$ $^{\circ}\text{C}$	
Humidity	10 \sim 90% RH, Non-condensing	

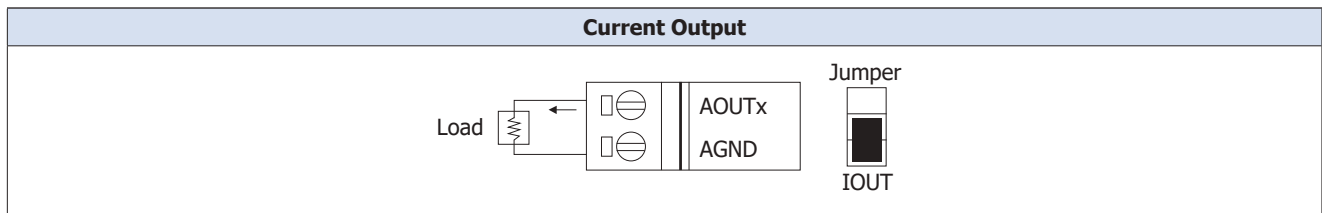
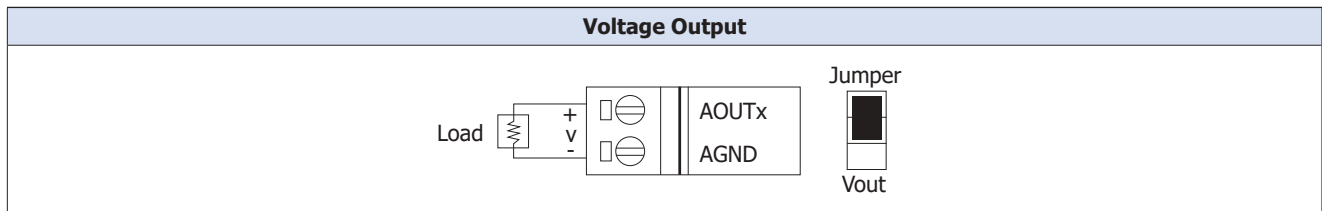
Pin Assignments



Internal I/O Structure



Wire Connections



Digital Input/Counter	Readback as 1	Readback as 0
	+3.5 ~ +50 VDC	+1 VDC Max.
Wet Contact (Sink)		
Wet Contact (Source)		
	+3.5 ~ +50 VDC	+1 VDC Max.
Power Relay	Readback as 1	Readback as 0
Relay Output		

Ordering Information

XV303 CR	4-ch AO, 4-ch DI (Wet) and 4-ch Power Relay (6A Rating Current) Expansion Board (RoHS)
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