

XV306

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

Features

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



Introduction

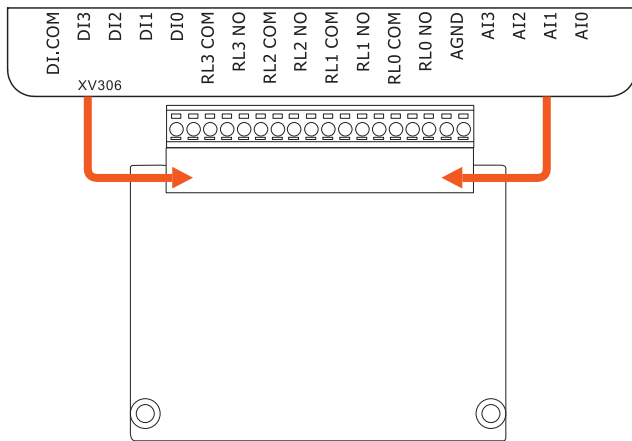
The XV306 is a multifunction expansion board that includes 4 Analog Input channels, 4 Digital Input channels and 4 Form A Relay Output channels. It provides a programmable input range on all Analog Input channels (± 1 V, ± 2.5 V, ± 5 V, ± 10 V, ± 20 mA, $0 \sim +20$ mA or $+4 \sim +20$ mA), and voltage and current outputs are jumper selectable. The Digital Input channels can be used as 32-bit counters. The XV306 also provides options for configuring power-on values for the Digital Output. 4 kV ESD protection and 2000 VDC intra-module isolation are also provided to enhance noise immunity capabilities in industrial environments.

Specifications

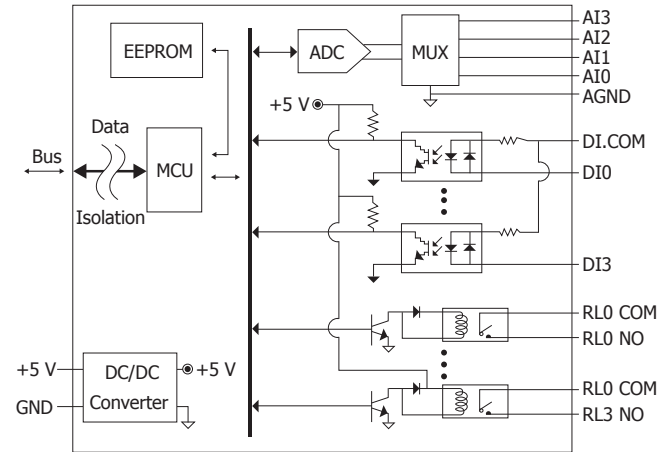
Isolation		
Intra-module Isolation	2000 VDC	
EMS Protection		
ESD (IEC 61000-4-2)	± 4 kV Contact For Each Terminal	
	± 8 kV Air For Random Terminal	
Analog Input		
Channels	4	
Type	± 1 V, ± 2.5 V, ± 5 V, ± 10 V, ± 20 mA, $0 \sim 20$ mA, $4 \sim 20$ mA (Jumper Selectable)	
Resolution	16-bit	
Accuracy	Normal Mode	± 0.1 %
	Fast Mode	± 0.5 %
Sampling Rate	Normal Mode	10 Hz
	Fast Mode	200 Hz
Input Impedance	20 M Ω	
Overvoltage Protection	120 VDC	
Individual Channel Configuration	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)	
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 x 10 ⁵ ops.	
Mechanical Endurance	30 x 10 ⁵ 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	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	$-25 \sim +75$ °C	
Storage Temperature	$-30 \sim +80$ °C	
Humidity	10 ~ 90% RH, Non-condensing	

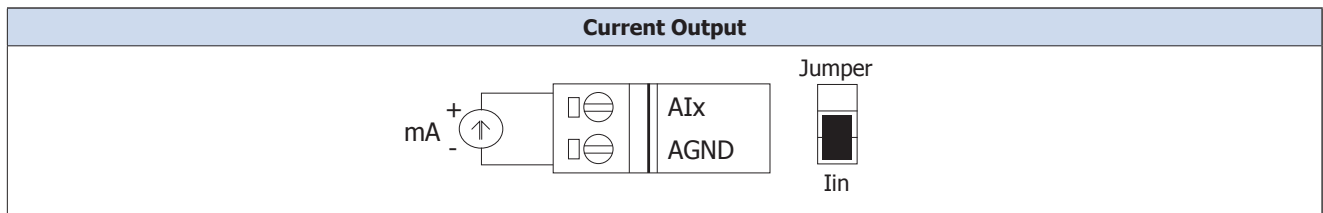
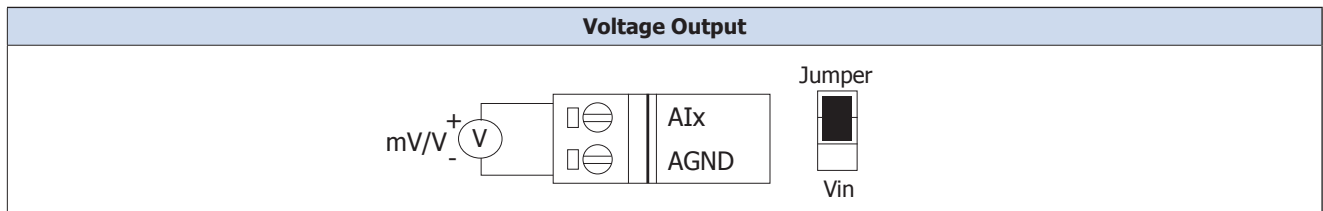
Pin Assignments



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)		
Power Relay	Readback as 1	Readback as 0
Relay Output		

Ordering Information

XV306 CR	4-ch AI, 4-ch DI (Wet) and 4-ch Power Relay (6A Rating Current) Expansion Board (RoHS)
-----------------	--