

XV386

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

Features

- Multifunction design: 4 AI, 4 DI, 4 Relays
- Individual channel configuration
- Jumper-selectable voltage or current input
- Digital input channels can function as 32-bit counters
- Open wire detection for current input
- Configurable power-on values
- 120 VDC overvoltage protection for analog inputs
- 70 VDC overvoltage protection for digital inputs

Introduction

The XV386 is a multifunction expansion board that includes four analog input channels, four digital input channels, and four Form A relay output channels.
Channel 0 provides a programmable input range of ±30V and ±15V (exclusive high-range interface), while the other analog input channels offer a programmable range of ±1V, ±2.5V, ±5V, ±10V, ±20 mA, 0 to +20 mA, or +4 to +20 mA. Voltage and current inputs are jumper-selectable.
The digital input channels can also function as 32-bit counters. Additionally, the XV386 provides options for configuring power-on values for the digital outputs. To enhance noise immunity in industrial environments, the board features 4 kV ESD protection and 2,000 VDC intra-module isolation.

Applications

- Building automation
- Machine automation
- Remote Maintenance
- Factory Automation
- Remote Diagnosis
- Testing equipment

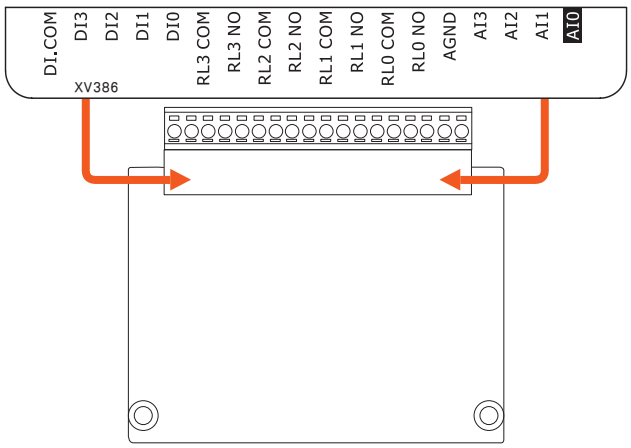
Specifications

EMS Protection		
ESD (IEC 61000-4-2)		±4 kV Contact For Each Terminal
		±8 kV Air For Random Terminal
Analog Input		
Channels		4
Type	ch0	±15 V, ±30 V
	ch1 ~ ch3	±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
Input Impedance		20 MΩ
Overvoltage Protection		120 VDC
Individual Channel Configuration		Yes
Open Wire Detection	ch1 ~ ch3	Yes
Digital Input/Counter		
Channels		4
Type		Wet Contact, Sink/Source
Wet Contact	ON Voltage Level	+3.5 ~ +50 VDC
	OFF Voltage Level	+1 VDC Max.
Max. Counts		32-bit (0 ~ 4, 294, 967, 285)
Frequency		50 Hz
Min. Pulse Width		10 ms
Input Impedance		10 KΩ, 0.5 W
Overvoltage Protection		70 VDC

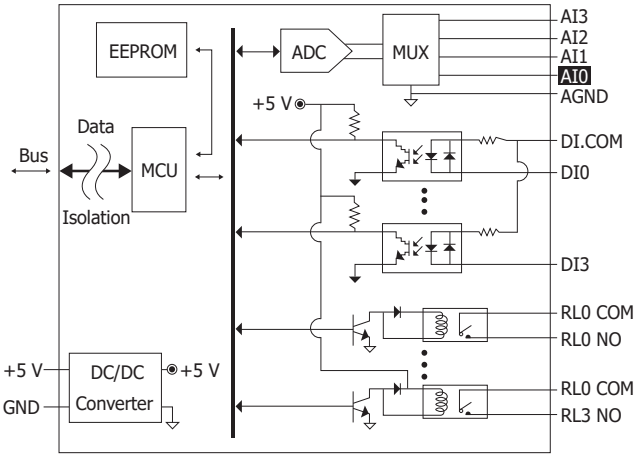
Isolation		
Intra-module Isolation		2000 VDC
Relay Output		
Channels		4
Type		Power Relay (Form A)
Form A Relay	Contact Material	Silver Cadmium Alloy
	Contact Rating	6 A @ 35 VDC
		6 A @ 240 VAC
	Operate Time	5 ms (typical)
	Release Time	1 ms (typical)
	Electrical Endurance	1 x 105 ops
	Mechanical Endurance	30 x 106 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 ~ +75 °C
Storage Temperature		-30 ~ +80 °C
Humidity		10 ~ 90% RH, Non-condensing

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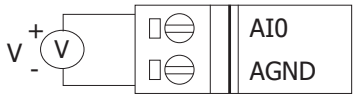
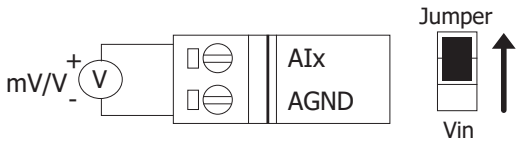
Pin Assignments



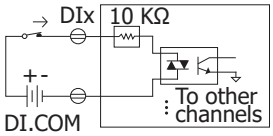
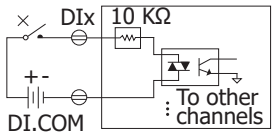
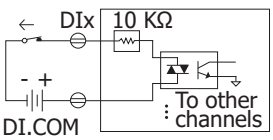
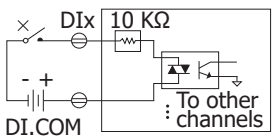
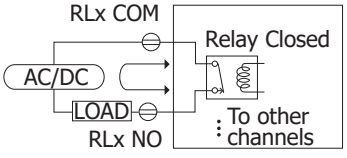
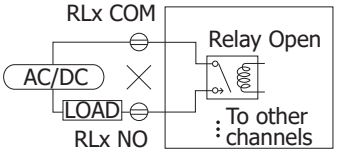
Internal I/O Structure



Wire Connections

Voltage Input	
ch0	ch1-3
	

Current Input
ch1-3


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

Ordering Information

XV386 CR	4-ch AI, 4-ch DI (Wet) and 4-ch Power Relay (6A Rating Current) Expansion Board (RoHS)

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