

## XV308

8-ch Isolated AI and 8-ch Isolated Universal Digital I/O Expansion Board

### Features

- 8-channel Analog Input
- 8-channel Universal Digital Input/Output
- Digital Input Channels can be used as 32-bit Counters
- Configurable Power-on Value Settings
- Open Wire Detection for 4 ~ 20 mA
- Individual Channel Configuration
- 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

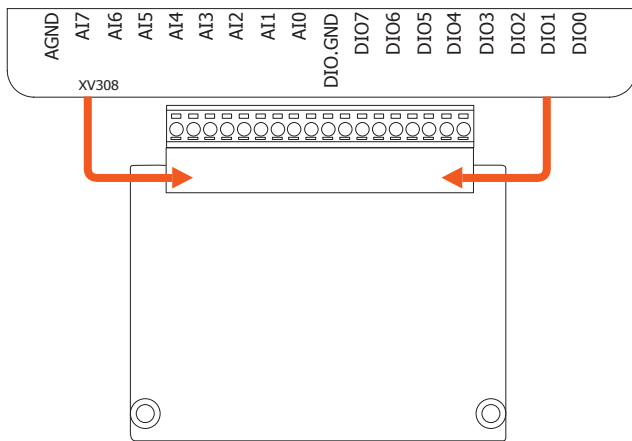
The XV308 provides 8 channels for analog input and 8 channels for universal digital input/output. Analog Input channels are Single-ended type and provide a programmable input range ( $\pm 1$  V,  $\pm 2.5$  V,  $\pm 5$  V,  $\pm 10$  V,  $\pm 20$  mA, 0 ~ 20 mA, 4 ~ 20 mA). Each Analog Input channels also provides a high overvoltage protection of 120 VDC. Universal digital input/output can be selected via wire connections. Digital input channels are sourcetype and can be used as 32-bit counters. Digital output channels are sink-type with short circuit protection and options for configuring power-on digital output values.

### Specifications

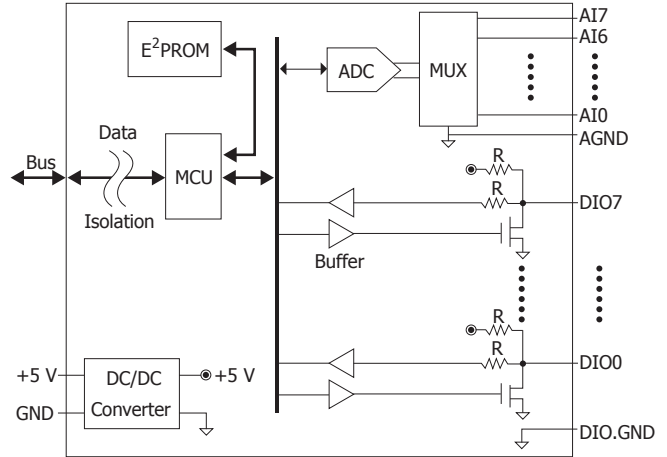
Isolation		
Intra-module Isolation	2000 VDC	
EMS Protection		
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact For Each Terminal	
	$\pm 8$ kV Air For Random Terminal	
Analog Input		
Channels	8	
Type	$\pm 1$ V, $\pm 2.5$ V, $\pm 5$ V, $\pm 10$ V, $\pm 20$ mA, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)	
Resolution	16-bit	
Accuracy	Normal Mode	$\pm 0.1\%$
	Fast Mode	$\pm 0.5\%$
Sampling Rate	Normal Mode	10 Hz
	Fast Mode	200 Hz (Total)
Input Impedance	20 M $\Omega$	
Overvoltage Protection	120 VDC	
Individual Channel Configuration	Yes	
Digital Input/Counter		
Channels	Digital Input and Digital Output=8 (By Wire Connection)	
Wet Contact	ON Voltage Level	+1 VDC Max.
	OFF Voltage Level	+4 ~ 30 VDC
Dry Contact	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	Digital Input and Digital Output=8 (By Wire Connection)
Type	Sink
Load Voltage	3.5 ~ 50 VDC
Max. Load Current	700 mA
Overvoltage Protection	60 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	0.8 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

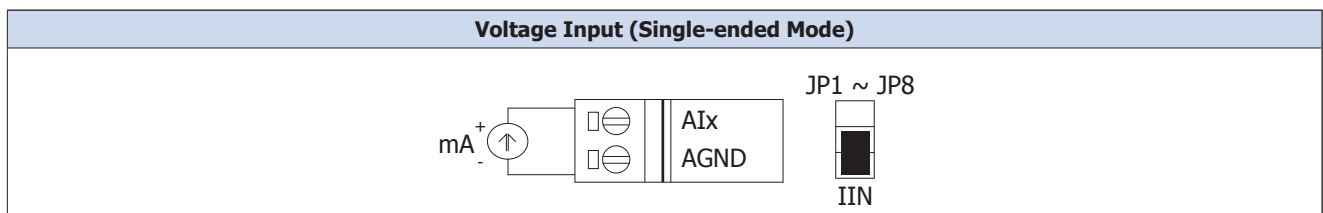
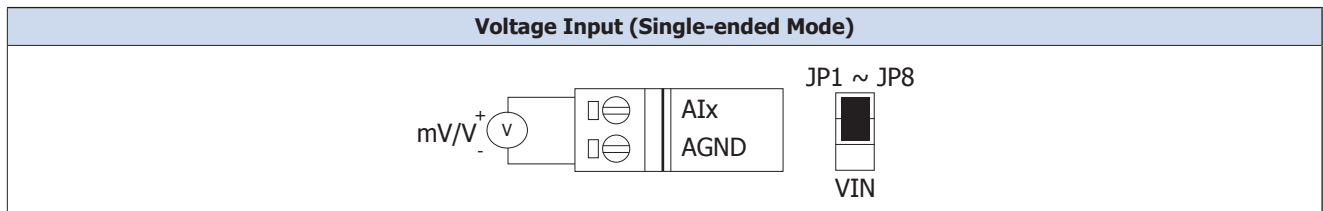
## Pin Assignments



## Internal I/O Structure



## Wire Connections



Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
	+1 VDC Max.	+4 ~ 30 VDC
Wet Contact (Sink)		
Dry Contact (Source)		
Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		

## Ordering Information

<b>XV308 CR</b>	8-ch Isolated AI and 8-ch Isolated Universal Digital I/O Expansion Board (RoHS)
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