XV110

16-ch Isolated DI (3.5 ~ 50VDC) Expansion Board

Features

- 16-channel Digital Inputs
- Dry and Wet Contact, Selectable via Wire Connections
- Long Effective Distance up to 500 meters for Dry Contact
- All Channels can be used as 32-bit Counters
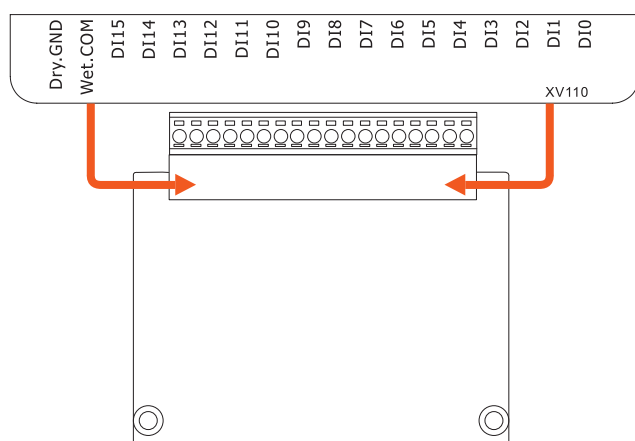- 70 VDC Overvoltage Protection for Digital Input

Introduction

The XV110 provides 16 channels for digital input, catering for both dry and wet contact, with an effective distance for dry contact of up to 500 meters. All channels feature photocouple isolation, and can be used as 32-bit counters. In addition, either sink- or source-type digital input can be selected via wire connections. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided to enhance noise immunity capabilities in industrial environments.
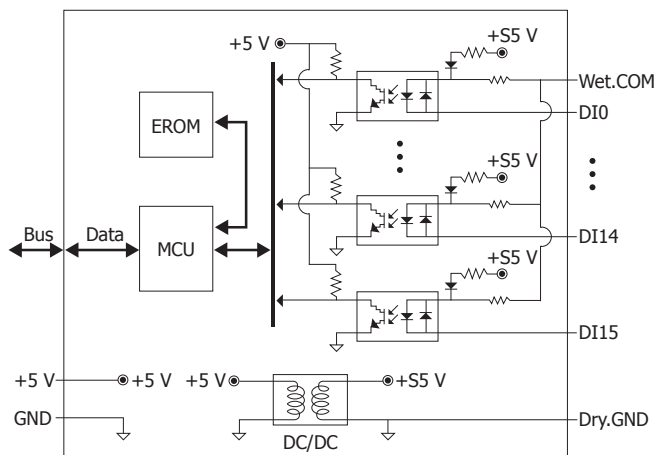
Specifications

Isolation	
Intra-module Isolation	3750 VDC

EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact For Each Terminal	
	±8 kV Air For Random Terminal	

Digital Input/Counter		
Channels	16	
Type	Dry Contact	Source
	Wet Contact	Sink/Source
Wet Contact	ON Voltage Level	+3.5 ~ 50 VDC
	OFF Voltage Level	+1 VDC Max.
Dry Contact	ON Voltage Level	Close to GND
	OFF Voltage Level	Open
	Effective Distance	500 m 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	

COM Ports	
Ports	1 x RS-232
Baud Rate	115200 bps
Data Format	N, 8, 1
Protocol	Modbus/RTU

Power	
Consumption	0.2 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	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.
Dry Contact	Closed to Dry.GND	Open

■ Ordering Information

XV110 CR	16-ch Isolated DI (Dry/Wet, 3.5 ~ 50VDC) Expansion Board (RoHS)