XV110

16-channel Isolated Digital Input Module

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.

System Specifications

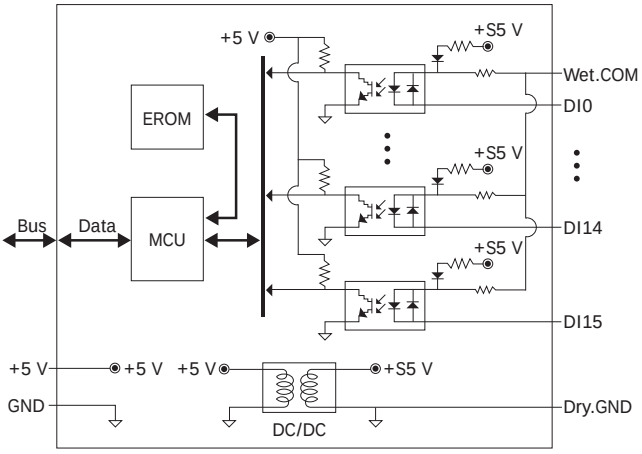
Communication	
Interface	RS-232/TTL
Format	N, 8, 1
Baud Rate	115200 bps
Protocol	Modbus/RTU
Isolation	
Intra-module Isolation, Field-to-Logic	3750 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact For Each Terminal
	±8 kV Air For Random Terminal
Power	
Powered from Terminal Block	5 VDC
Consumption	0.25 W Max.
Mechanical	
Dimensions (W x L x H)	59 mm x 82 mm x 13 mm
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +75°C
Humidity	10 ~ 95% RH, Non-condensing

I/O Specifications

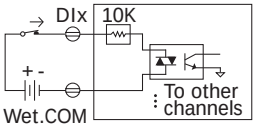
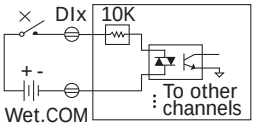
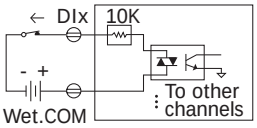
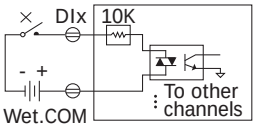
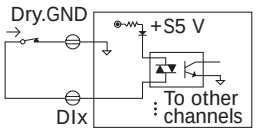
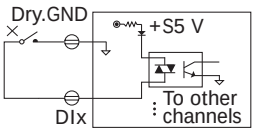
Digital Input/Counter		
Input Channels		16
Type	Dry Contact	Source
	Wet Contact	Sink/Source
On Voltage Level	Dry Contact	Close to GND
	Wet Contact	+3.5 ~ +50 VDC
Off Voltage Level	Dry Contact	Open
	Wet Contact	+1 VDC Max.
Input Impedance		10 KΩ, 0.5 W
Counters	Channels	16
	Max. Count	32-bit (0 ~ 4, 294, 967, 285)
	Max. Input Frequency	50 Hz
	Min. Pulse Width	10 ms
Overvoltage Protection		70 VDC
Effective Distance for Dry Contact		500 m Max.

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-channel Isolated Dry and Wet Contact Digital Input Module With 16-bit Counters (RoHS)