



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 ~ +80°C |
| Humidity | 10 ~ 90% RH, Non-condensing |

I/O Specifications

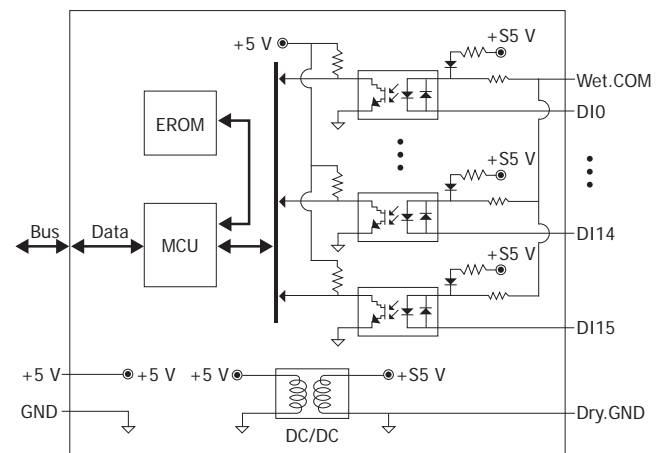
| Digital Input/Counter | | |
|------------------------------------|----------------------|-------------------------------|
| Input Channels | | 16 |
| Type | Dry Contact | Source |
| | Wet Contact | Sink/Source |
| On Voltage Level | Dry Contact | Close to GND |
| | Wet Contact | +3.5 ~ +50 VDC |
| 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

| | | | | | | | | | | | | | | | | |
|---------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Dry.GND | DI15 | DI14 | DI13 | DI12 | DI11 | DI10 | DI9 | DI8 | DI7 | DI6 | DI5 | DI4 | DI3 | DI2 | DI1 | DI0 |
| Wet.COM | | | | | | | | | | | | | | | | |

XV110

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) | | |
| | Closed to Dry.GND | Open |
| Dry Contact | | |

Ordering Information

| | |
|-----------------|--|
| XV110 CR | 16-channel Isolated Dry and Wet Contact Digital Input Module With 16-bit Counters (RoHS) |
|-----------------|--|