

XV116

5-channel Isolated Digital Input and
6-channel Relay Output Module

Introduction

The XV116 provides 5 channels for digital input, as well as 6 Form A relay output channels. In addition, either sink- or source-type digital input can be selected via wire connections. All input channels can be used as 32-bit counters. The XV116 also provides options for configuring power-on digital output values. 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	1.2 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

Features

- 5 Digital Input channels and 6 Relay Output channels
- Sink- and Source-type Digital Input
- Digital Input Channels can be used as 32-bit Counters
- Configurable Power-on Value Settings
- 70 VDC Overvoltage Protection for Digital Input



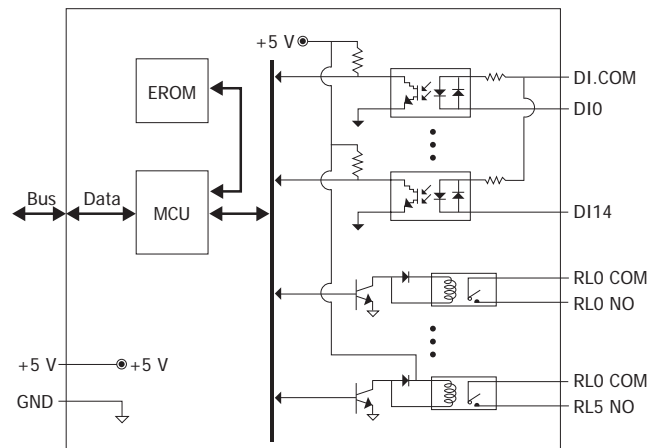
I/O Specifications

Digital Input/Counter			
Input Channels	5		
Type	Dry Contact	-	
	Wet Contact	Sink/Source	
On Voltage Level	Dry Contact	-	
	Wet Contact	+3.5 ~ +50 VDC	
Off Voltage Level	Dry Contact	-	
	Wet Contact	+1 VDC Max.	
Input Impedance	10 KΩ, 0.5 W		
Counters	Channels	5	
	Max. Count	32-bit (0 ~ 4, 294, 967, 285)	
	Max. Input Frequency	50 Hz	
	Min. Pulse Width	10 ms	
Overvoltage Protection	70 VDC		
Relay Output			
Channels	2 (Channel 0,1)	4 (Channel 2 ~ 5)	
Type	Signal Relay	Power Relay	
Form A Relay	Contact Rating	2 A @ 30 VDC	6 A @ 35 VDC
		0.24 A @ 220 VDC	6 A @ 240 VAC
		0.25 A @ 250 VAC	
	Min. Contact Load	10 mA @ 20 mV	100 mA @ ≥ 12 V
	Contact Material	Silver Nickel, Gold-covered	Silver Cadmium Alloy
	Operate Time	3 ms (typical)	5 ms (typical)
	Release Time	4 ms (typical)	1 ms (typical)
	Mechanical Endurance	10 ⁸ ops.	30 X 10 ⁶ ops.
Electrical Endurance	2 X 10 ⁵ ops.	1 X 10 ⁵ ops.	
Power-on Value	Yes		

Pin Assignments

DI.COM	DI4	DI3	DI2	DI1	DI0	RL5 COM	RL5 NO	RL4 COM	RL4 NO	RL3 COM	RL3 NO	RL2 COM	RL2 NO	RL1 COM	RL1 NO	RL0 COM	RL0 NO
XV116																	

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
Power Relay		Readback as 1
Relay Output		

Ordering Information

XV116 CR	5-channel Isolated Digital Input and 6-channel Relay Output Module with 16-bit Counters (RoHS)
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