

XV116

5-ch Isolated DI and 6-ch Relay Expansion Board

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



Introduction

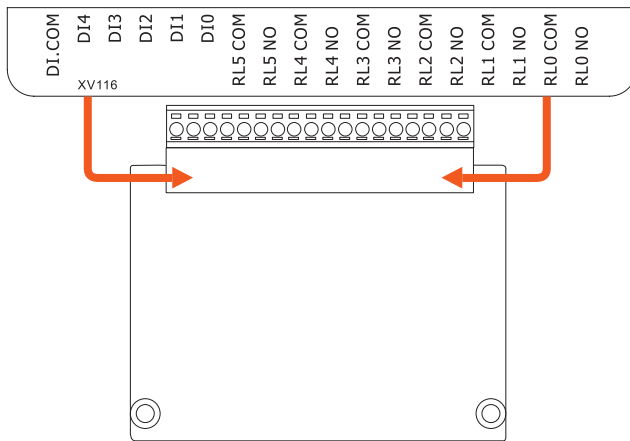
The XV116 provides 5 channels for digital input, as well as 6 Form A relay output channels. In addition, either sink- or source-type digital input can be selected via wire connections. All input channels can be used as 32-bit counters. The XV116 also provides options for configuring power-on digital output via I u e s . 4 kv ESD protection and 3750 VDC intra-module isolation are also provided to enhance noise immunity capabilities in industrial environments.

Specifications

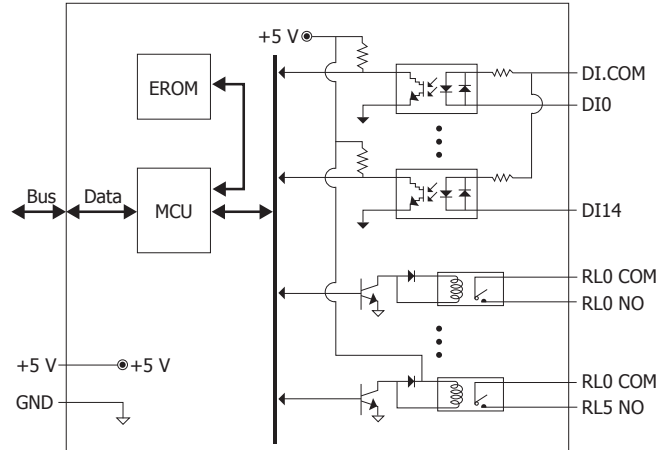
Isolation		
Intra-module Isolation	3750 VDC	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact For Each Terminal	
	±8 kV Air For Random Terminal	
Digital Input/Counter		
Channels	5	
Type	Wet Contact, Sink/Source	
Wet Contact	ON Voltage Level	+3.5 ~ +50 VDC
	OFF Voltage Level	+1 VDC Max.
Max. Counts	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	
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, 0.24 A @ 220 VDC, 0.25 A @ 250 VAC
	Operate Time	3 ms (typical)
	Release Time	4 ms (typical)
	Electrical Endurance	2 x 10 ⁵ ops
Mechanical Endurance	10 ⁸ ops.	30 x 10 ⁶ ops.
	Power on Value	Yes

COM Ports	
Ports	1 x RS-232
Baud Rate	115200 bps
Data Format	N, 8, 1
Protocol	Modbus/RTU
Power	
Consumption	1.2 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
Power Relay		Readback as 1
Relay Output		

Ordering Information

XV116 CR	5-ch Isolated DI (Wet) and 6-ch Relay Expansion Board (RoHS)
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