

XV107/XV107A

8-channel Isolated Digital Input and
8-channel Isolated Digital Output Module

Introduction

The XV107 provides 8 channels for digital input and 8 channels for digital output, each of which features photocouple isolation. The XV107 supports sink-type output with short circuit protection, while the input is source-type. All input channels can be used as 32-bit counters. There are options for configuring power-on digital output values. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided. The XV107A has the same specifications as the XV107, except that the input and output types are reversed.

System Specifications

Model	XV107	XV107A
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	0.15 W Max.	0.45 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	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

Features

- XV107
 - Sink-type Digital Output
 - Source-type Digital Input
- XV107A
 - Source-type Digital Output
 - Sink-type Digital Input
- All Input Channels Can Be Used As 32-bit Counters
- Configurable Power-on Value Settings
- 70 VDC Overvoltage Protection for Digital Input
- Overload Protection for Digital Output
- Short-circuit Protection for Digital Output



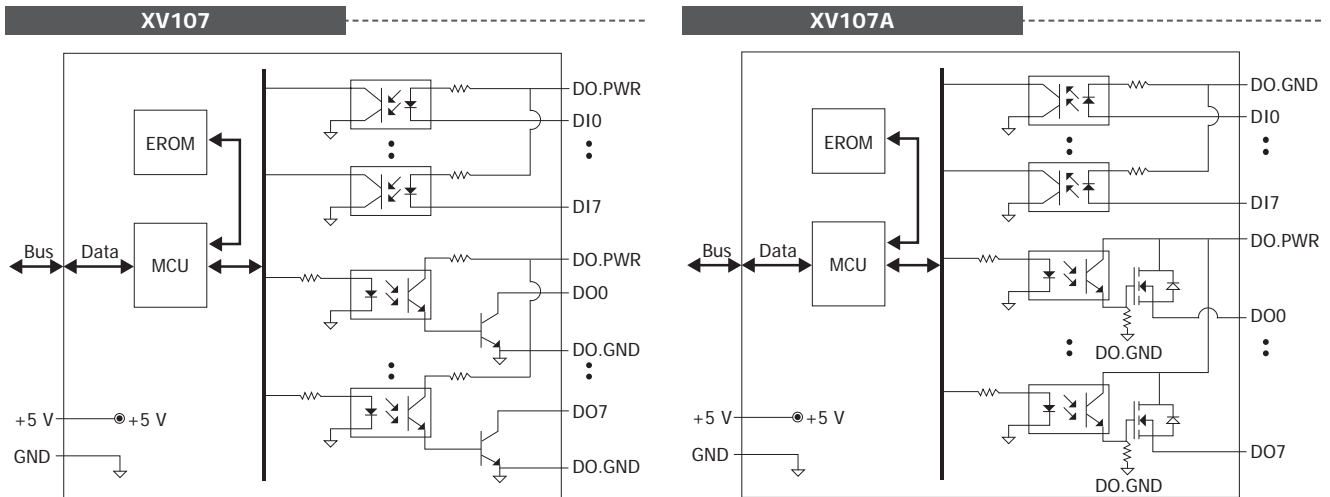
Pin Assignments

D10	D11	D12	D13	D14	D15	D16	D17	DO.GND	DO.PWR	D00	D01	D02	D03	D04	D05	D06	D07
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I/O Specifications

Model	XV107	XV107A	
Digital Input/Counter			
Input Channels	8		
Type	Dry Contact	-	
	Wet Contact	Source	Sink
On Voltage Level	Dry Contact	-	
	Wet Contact	+3.5 ~ +50 VDC	
Off Voltage Level	Dry Contact	-	
	Wet Contact	+1 V Max.	
Input Impedance	10 KΩ, 0.5 W		
Counters	Channels	8	
	Max. Count	32-bit (0 ~ 4, 294, 967, 285)	
	Max. Input Frequency	50 Hz	
	Min. Pulse Width	10 ms	
Overvoltage Protection	70 VDC		
Digital Output			
Output Channels	8		
Type	Sink	Source	
Max. Load Current	700 mA/channel	650 mA/channel	
Load Voltage	3.5 ~ 50 VDC	10 ~ 40 VDC	
Overvoltage Protection	60 VDC	47 VDC	
Overload Protection	Yes		
Short-circuit Protection	Yes		
Power-on Value	Yes, Programmable		

Internal I/O Structure



Wire Connections

XV107		
Input Type	Readback as 1	Readback as 0
Source	+3.5 ~ 50 VDC 	+1 V Max.
Output Type	Readback as 1	Readback as 0
Drive Relay		
Resistance Load		

XV107A		
Input Type	Readback as 1	Readback as 0
Sink	+3.5 ~ 50 VDC 	+1 V Max.
Output Type	Readback as 1	Readback as 0
Drive Relay		
Resistance Load		

Ordering Information

XV107 CR	8-channel Isolated Source-type Digital Input and 8-channel Isolated Sink-type Digital Output (RoHS)
XV107A CR	8-channel Isolated Sink-type Digital Input and 8-channel Isolated Source-type Digital Output (RoHS)