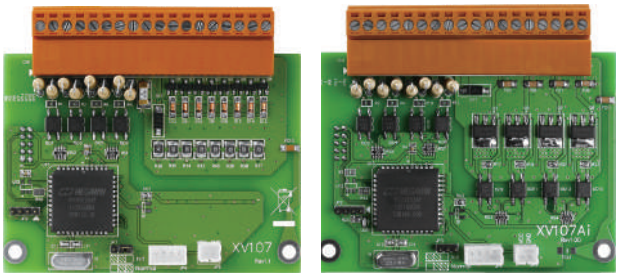


XV107 / XV107A

8-ch Isolated DI and 8-ch Isolated DO Expansion Board

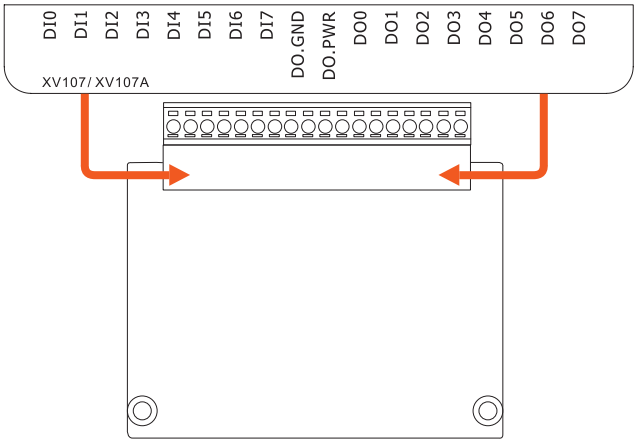
Features

- 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

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 an 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.

Pin Assignments



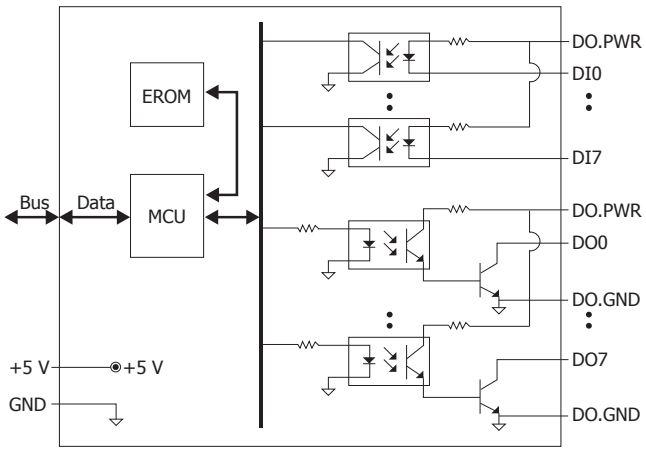
Specifications

Isolation		XV107	XV107A
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		8	
Type		Wet Contact, Source	Wet Contact, Sink
Wet Contact	ON Voltage Level	+3.5 ~ 50 VDC	
	OFF Voltage Level	+1 VDC Max.	
Max. Counts		32-bit (0 ~ 4, 294, 967, 285)	
Min. Pulse Width		10 ms	
Input Impedance		10 KΩ, 0.5 W	
Overvoltage Protection		70 VDC	
Digital Output			
Channels		8	
Type		Sink	Source
Load Voltage		3.5 ~ 50 VDC	10 ~ 40 VDC
Max. Load Current		700 mA/channel	650 mA/channel
Overvoltage Protection		60 VDC	47 VDC
Overload Protection		Yes	
Short-Circuit Protection		Yes	
Power on Value		Yes, Programmable	

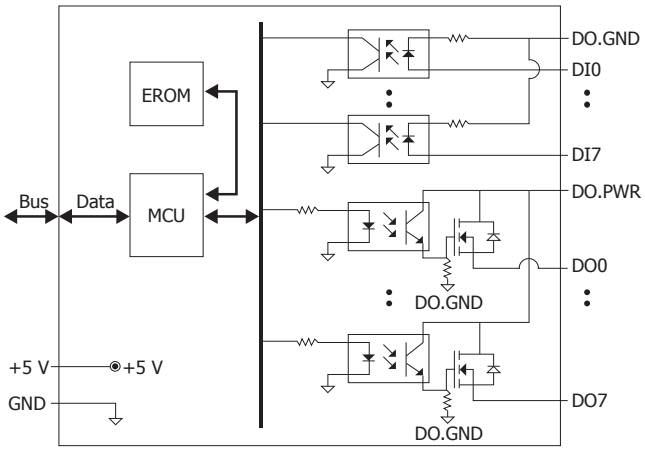
COM Ports	XV107	XV107A
Ports	1 x RS-232	
Baud Rate	115200 bps	
Data Format	N, 8, 1	
Protocol	Modbus/RTU	
Power		
Consumption	0.15 W Max.	0.45 W Max.
Powered from Terminal Block	5 VDC	
Mechanical		
Dimensions (mm)	59 mm x 82 mm x 13 mm (W x L x H)	
Environmental		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +80 °C	
Humidity	10 ~ 90% RH, Non-condensing	

Internal I/O Structure

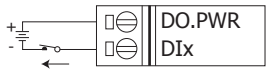
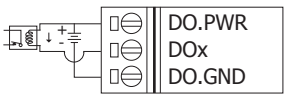
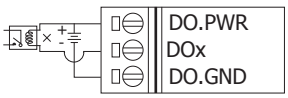
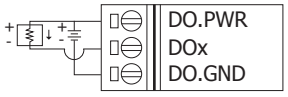
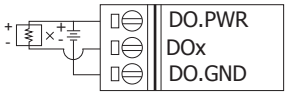
XV107

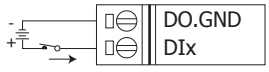
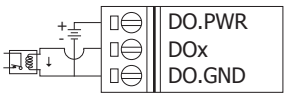
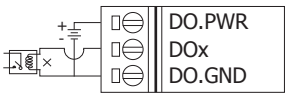
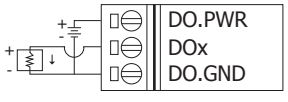
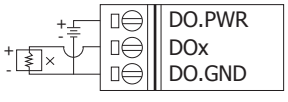


XV107A



Wire Connections

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

Ordering Information

XV107 CR	8-ch Isolated DI (Wet, Source) and 8-ch Isolated DO (Sink, NPN, 3.5 ~ 50 VDC) Expansion Board (RoHS)
XV107A CR	8-ch Isolated DI (Wet, Sink) and 8-ch Isolated DO (Source, PNP, 10 ~ 40 VDC) Expansion Board (RoHS)