

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 16-bit counters. There are options for configuring power-on and safe 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.

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 16-bit Counters
- Photocouple Isolation
- Configurable Power-on Value Settings
- Configurable Safe Value Settings
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ + 75°C



Applications

- Industrial Automation
- Building Automation
- Food and Beverage Systems
- Control Systems

Pin Assignments

D10	D11	D12	D13	D14	D15	D16	D17	DO.GND	DO.PWR	DO0	DO1	DO2	DO3	DO4	DO5	DO6	DO7
XV107/ XV107A																	

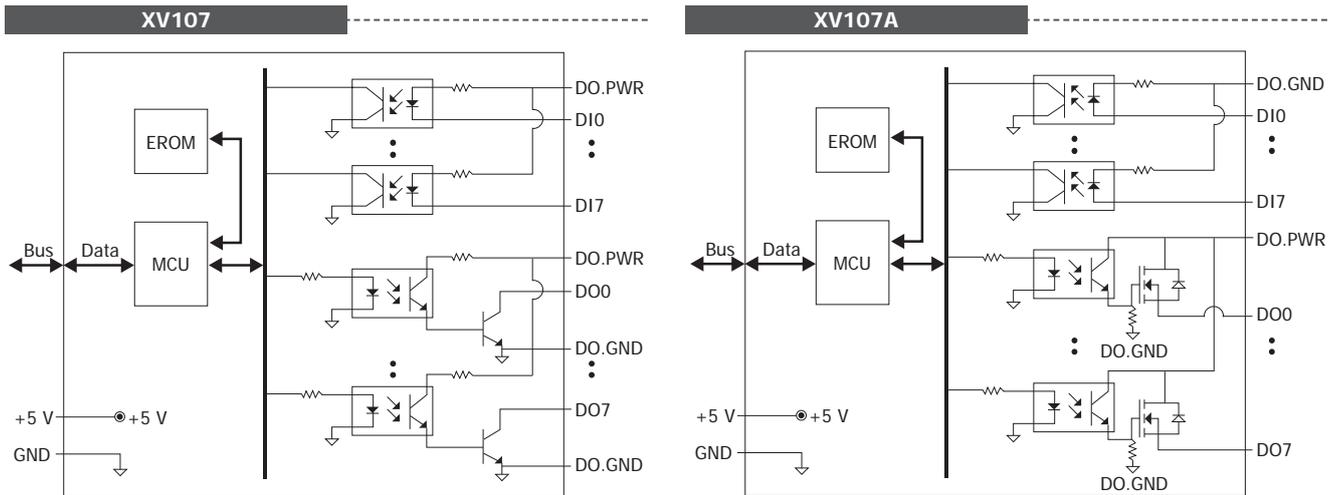
System Specifications

Model	XV107	XV107A
Communication		
Interface	RS-232/TTL	
Format	N, 8, 1	
Baud Rate	115200 bps	
Protocol	Modbus/RTU	
Dual Watchdog	Yes, Module (2.3 seconds), Communication (Programmable)	
Isolation		
Intra-module Isolation, Field-to-Logic	3750 Vdc	
EMS Protection		
ESD (IEC 61000-4-2)	+/-4kV Contact For Each Terminal	
	+/-8kV Air For Random Terminal	
Power		
Reverse Polarity Protection	-	
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	

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	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 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	
Safe Value	Yes, Programmable	

Internal I/O Structure



Wire Connections

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

XV107A		
Input Type	Readback as 1 +3.5 ~ 50 Vdc	Readback as 0 +1 V Max.
Sink		
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)