



Digital Input

RS-485 Remote I/O Modules



I-87058W

I-87059W

8-channel AC Isolated Digital Input Module

Introduction

The I-87058W is an 8-channel AC digital input module with high voltage isolation. The ON voltage level for the module range can be between 80 and 250 VAC, and all DI channels are also able to be used as 16-bit counters. The I-87059W is an 8-channel AC digital input module with high voltage isolation. The ON voltage level for the module range can be between 10 and 80 VAC, and all DI channels are also able to be used as 16-bit counters.

The I-87058W and I-87059W include 8 LED indicators that can be used monitor DI channel status. 4 kV ESD protection and 5000 Vrms intra-module isolation are standard.

System Specifications

Model	I-87058W	I-87059W
Communication		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 to 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicators/Display		
System LED Indicator	1 LED as Power/Communication Indicator	
I/O LED Indicator	8 LEDs as Digital Input Indicators	
Isolation		
Intra-module Isolation, Field-to-Logic	5000 Vrms	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	
	±8 kV Air for Random Point	
Power		
Power Consumption	0.3 W Max.	
Mechanical		
Dimensions (W x L x H)	30 mm x 102 mm x 115 mm	
Environment		
Operating Temperature	-25 to +75°C	
Storage Temperature	-40 to +85°C	
Humidity	10 to 95% RH, Non-condensing	

Features

- 8-channel AC Digital Input
- Low Pass Filter
- Photocouple Isolation
- All Digital Channels Input can be used as Counter
- I/O LED Display
- ±4 kV ESD Protection
- 5000 Vrms Intra-module Isolation
- 2 kV Channel-to-Channel Isolation
- Overvoltage Protection
- Wide Operating Temperature Range: -25 to +75°C



Applications

- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment.

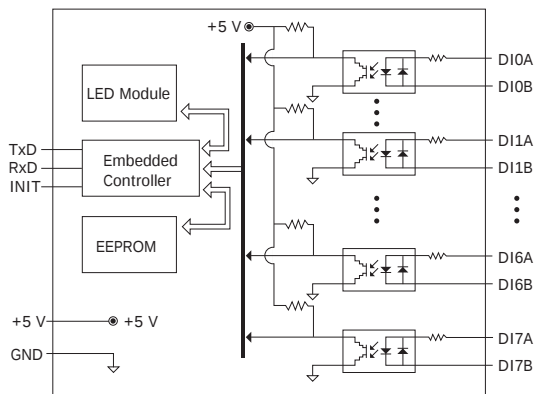
I/O Specifications

Model	I-87058W	I-87059W
Digital Input		
Channels	8	
Type	Differential	
Sink/Source (NPN/PNP)	-	
ON Voltage Level	80 ~ 250 VAC	10 ~ 80 VAC
OFF Voltage Level	30 VAC Max.	3 VAC Max.
AC Frequency	50 ~ 400 Hz	
Input Impedance	68 KΩ, 1 W	10 KΩ, 1 W
Counters	Channels	8
	Max. Count	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Channel-to-Channel Isolation	Yes, 2 kV	
Low Pass Filter	Yes	
Effective Distance for Dry Contact	-	
Overvoltage Protection	260 VAC	100 VAC

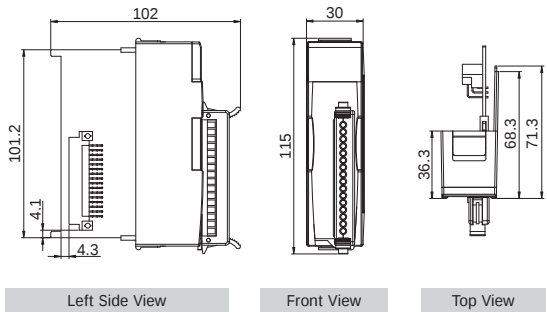
I-87KW Series

I-87058W/I-87059W

Internal I/O Structure



Dimensions (Units: mm)



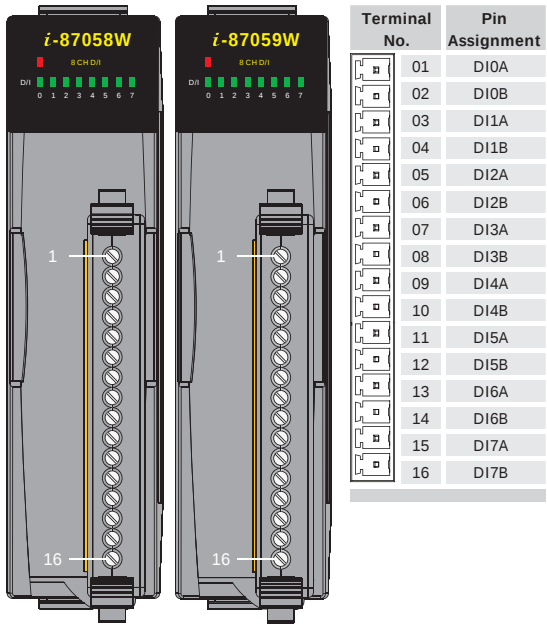
RS-485 Remote I/O Modules

Wire Connections

I-87058W		
Digital Input / Counter	ON State Readback as 1	OFF State Readback as 0
	80 VAC ~ 250 VAC	OPEN or < +30 VAC Max.
AC Digital Input		

I-87059W		
Digital Input / Counter	ON State Readback as 1	OFF State Readback as 0
	+10 ~ +80 VAC	Open or < 3 VAC
AC Digital Input		

Pin Assignments



I-87KW Series

Ordering Information

I-87058W-G CR	8-channel 80 to 250 VAC Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)
I-87059W-G CR	8-channel 10 to 80 VAC Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)

Accessories

SG-770 CR	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)
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I-87058W/I-87059W