



**I-87058W**

**I-87059W**

### Introduction

The I-87058W is an 8-channel AC/DC digital input module with high voltage isolation. The ON voltage level for the module range can be between 80 ~ 250 VAC/VDC, and all DI channels are also able to be used as 16-bit counters. The I-87059W is an 8-channel AC/DC digital input module with high voltage isolation. The ON voltage level for the module range can be between 10 ~ 80 VAC or 15 ~ 80 Vdc, 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
<b>Communication</b>		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 to 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
<b>LED Indicators/Display</b>		
System LED Indicators	Yes, 1 as Power/Communication Indicator	
I/O LED Indicators	8 as Digital Input Indicators	
<b>Isolation</b>		
Intra-module Isolation, Field-to-Logic	5000 Vrms	
<b>EMS Protection</b>		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	
	±8 kV Air for Random Point	
<b>Power</b>		
Power Consumption	0.3 W Max.	
<b>Mechanical</b>		
Dimensions (L × W × H)	115 mm × 30 mm × 102 mm	
<b>Environment</b>		
Operating Temperature	-25 to +75°C	
Storage Temperature	-40 to +85°C	
Humidity	10 to 95% RH, Non-condensing	

### Features

- 8-channel AC/DC 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



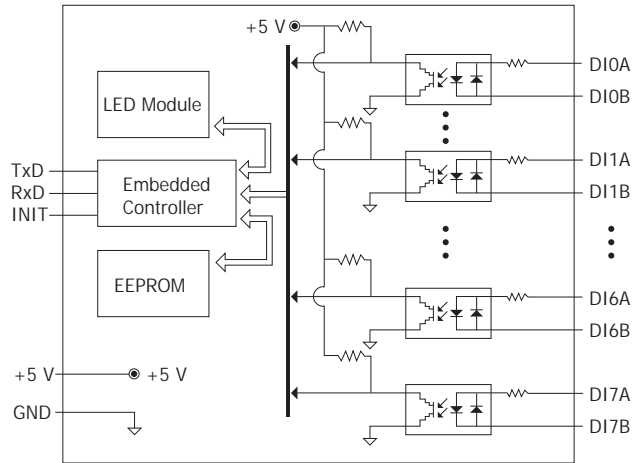
### Applications

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

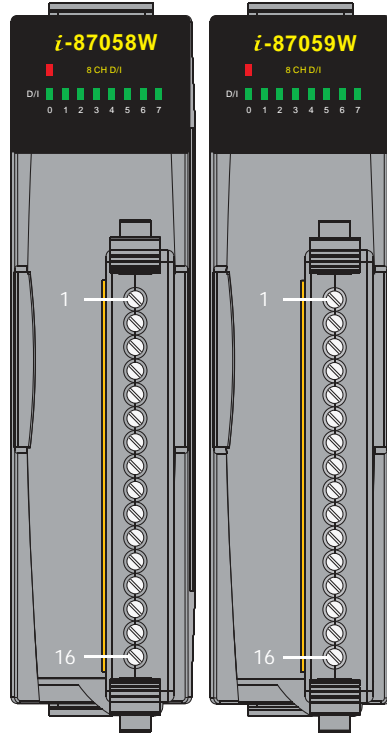
### I/O Specifications

Model	I-87058W	I-87059W
<b>Digital Input</b>		
Channels	8	
Type	Differential	
Sink/Source (NPN/PNP)	-	
ON Voltage Level	80 ~ 250 VAC	10 ~ 80 VAC
	80 ~ 250 VDC	15 ~ 80 VDC
OFF Voltage Level	30 VAC/VDC Max.	3 VAC/VDC Max.
AC Frequency	50 ~ 400 Hz	
Input Impedance	68 kΩ, 2 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	300 VAC/VDC Max.	100 VAC/VDC Max.

## Internal I/O Structure

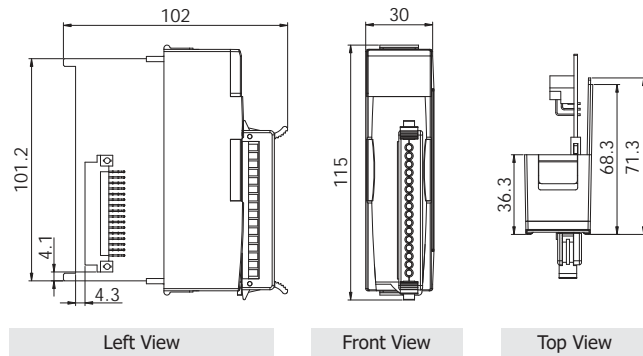


## Pin Assignments



Terminal No.	Pin Assignment
01	DI0A
02	DI0B
03	DI1A
04	DI1B
05	DI2A
06	DI2B
07	DI3A
08	DI3B
09	DI4A
10	DI4B
11	DI5A
12	DI5B
13	DI6A
14	DI6B
15	DI7A
16	DI7B

## Dimensions (Units: mm)



## Wire Connections

Digital Input/Counter	ON State Readback as 1		OFF State Readback as 0	
	I-87058W	I-87059W	I-87058W	I-87059W
AC Digital Input	80 ~ 250 VAC	10 ~ 80 VAC	OPEN or <30 VAC Max.	OPEN or <3 VAC Max.
DC Digital Input	80 ~ 250 VDC	15 ~ 80 VDC	OPEN or <30 Vdc Max	OPEN or <3 VDC Max

## Ordering Information

<b>I-87058W-G CR</b>	8-channel 80 to 250 VAC/VDC Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)
<b>I-87059W-G CR</b>	8-channel 10 to 80 VAC and 15 to 80 VDC 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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