



## I-87053W-A5 | I-87053W-E5

16-channel Isolated Digital Input Module with 16-bit Counters

### Features

- 16-channel Digital Inputs
- 150 VDC High-voltage Digital Inputs
- Photocouple Isolation
- Long Distance Measurement for I-87053W-A5
- 4 kV ESD Protection
- All Channels can be used as 16-bit Counters
- 3750 VDC Intra-module Isolation



### Introduction

The I-87053W-A5 and I-87053W-E5 provide 16 channels for high voltage digital input, each of which features photocouple isolation. The input voltage level can be as high as 150 VDC. In addition, either sink- or source-type digital input can be selected via wire connections, and all channels are able to be used as 16-bit counters. The effective distance for dry contact is up to 500 meters.

The I-87053W-A5 and I-87053W-E5 also provide 16 LED indicators that can be used to monitor the DI channel status. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided to enhance noise immunity capabilities in industrial environments.

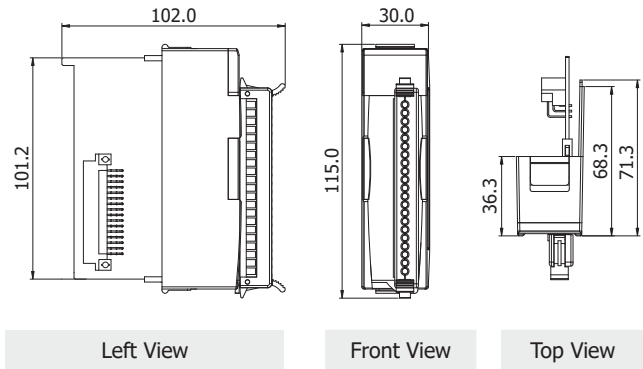
### Applications

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

### System Specifications

Model	I-87053W-A5	I-87053W-E5
<b>COM Port</b>		
Ports	RS-485	
Data Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
<b>CPU Module</b>		
Dual Watchdog Timer	Module (1.6 Seconds), Communication (Programmable)	
<b>LED Indicators</b>		
System LED Indicator	1 LED as Power Indicator	
I/O LED Indicator	16 as High/Low Alarm Signals	
<b>Isolation</b>		
Intra-module Isolation, Field-to-Logic	3750 VDC	
<b>EMS Protection</b>		
ESD (IEC 61000-4-2)	±4 kV Contact for Each port, ±8 kV Air for Random Point	
<b>Power</b>		
Consumption	0.8 W Max.	0.3 W Max.
<b>Mechanical</b>		
Dimensions (W x L x H)	30 mm x 115 mm x 102 mm	
<b>Environment</b>		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 95 % RH, Non-condensing	

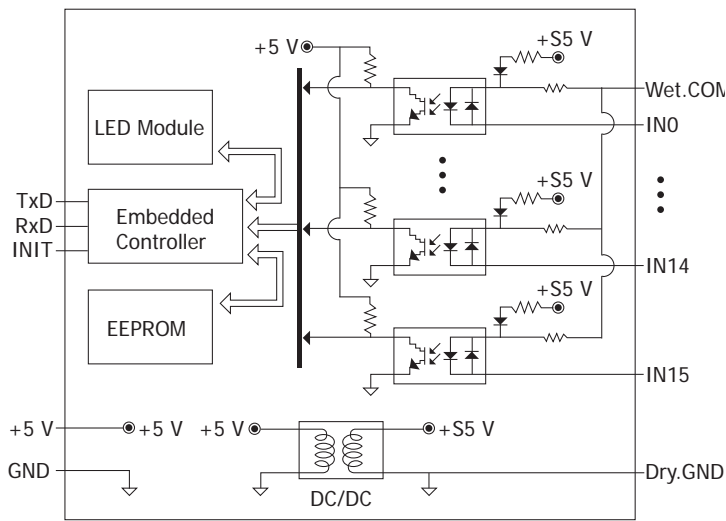
### Dimensions



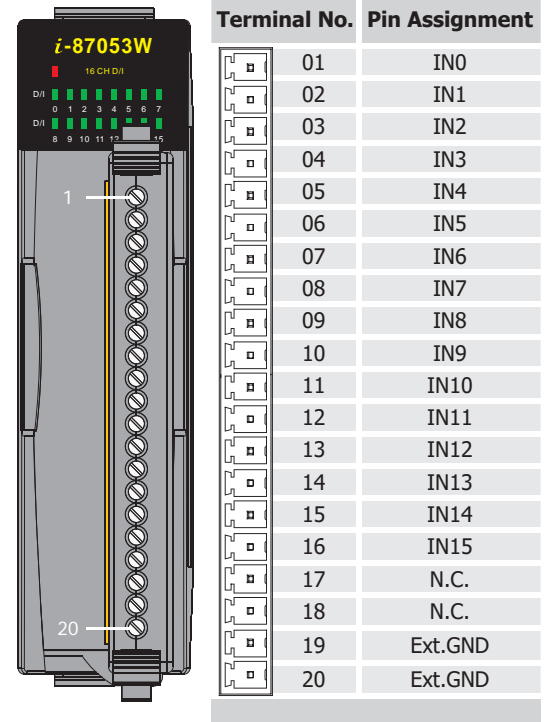
### I/O Specifications

Model	I-87053W-A5	I-87053W-E5
<b>Digital Input/Counter</b>		
Channels	16	
Type	Dry, Wet	Wet
Sink/Source (NPN/PNP)	Sink, Source	Sink
Dry Contact	On Voltage Level	Close to GND.
	Off Voltage Level	Open
Wet Contact	On Voltage Level	+68 ~ +150 VDC
	Off Voltage Level	+48 VDC Max.
Input Impedance	50 kΩ, 1 W	50 kΩ, 0.5 W
Max. Counts	16-bit (65535)	
Frequency	100 Hz	
Min. Pulse Width	5 ms	
Effective Distance	500 m Max.	-
Fuse Protection	-	Yes
Low Pass Filter	Yes	
Overvoltage Protection	220 VDC	150 VDC

## Internal I/O Structure



## Pin Assignments



## Wire Connections

I-87053W-A5		
Input Type	On State Readbackas 1	OFF State Readbackas 0
Dry Contact	Close to GND 	Open 
Wet Contact (Sink)	+68 ~ +150 VDC 	+48 VDC Max. 
Wet Contact (Source)	+68 ~ +150 VDC 	+48 VDC Max. 

I-87053W-E5		
Input Type	On State Readbackas 1	OFF State Readbackas 0
Wet Contact	+68 ~ +150 VDC 	+48 VDC Max. 

## Accessories

<b>SG-770 CR</b>	16-channel Isolated Digital Input Module with 16-bit Counters (RoHS)
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## Ordering Information

<b>I-87053W-A5 CR</b>	16-channel 68-150 VDC Isolated Digital Input Module with 16-bit Counters (RoHS)
<b>I-87053W-E5 CR</b>	16-channel 68-150 VDC Isolated Digital Input Module with 16-bit Counters (RoHS)