



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 eff ective 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.

System Specifications

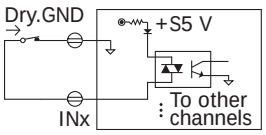
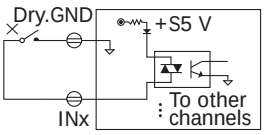
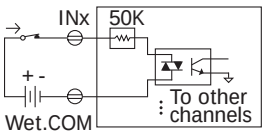
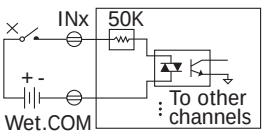
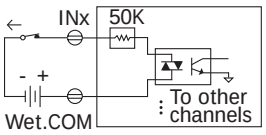
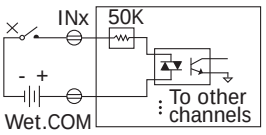
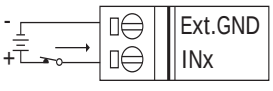
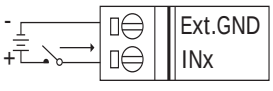
Model	I-87053W-A5	I-87053W-E5
COM Port		
Ports	RS-485	
Data Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
CPU Module		
Dual Watchdog Timer	Module (1.6 Seconds), Communication (Programmable)	
LED Indicators		
System LED Indicator	1 LED as Power Indicator	
I/O LED Indicator	16 as High/Low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

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I/O Specifications

Model		I-87053W-A5	I-87053W-E5
Digital Input/Counter			
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

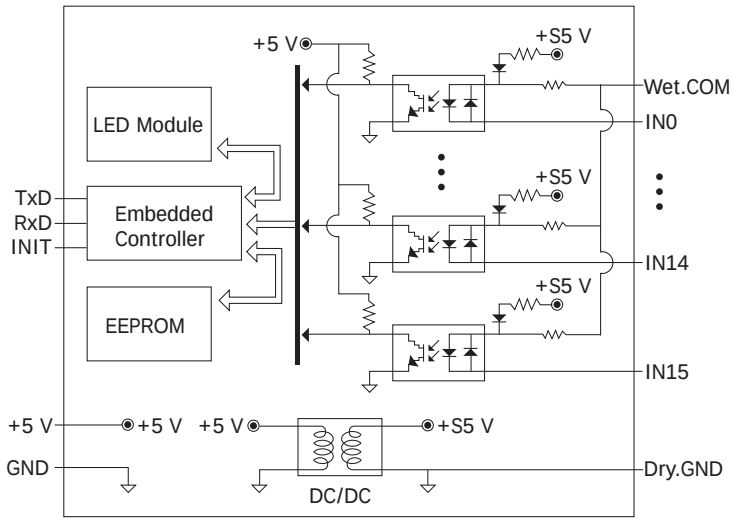
Wire Connections

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 (Source)	+68 ~ +150 VDC	+48 VDC Max.
		

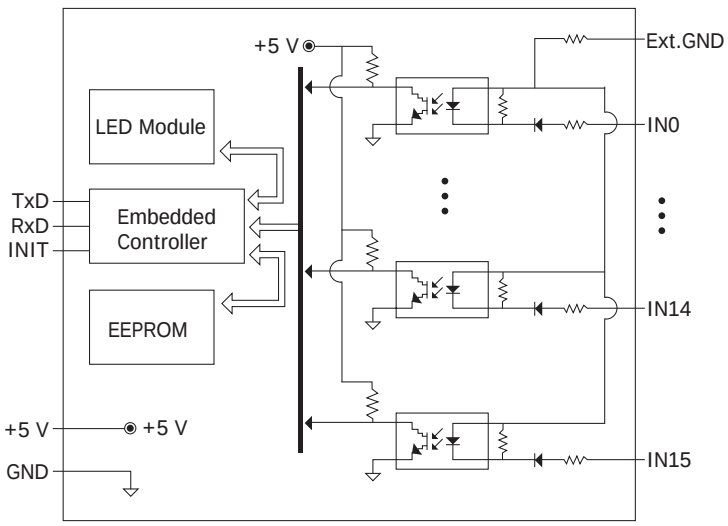
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Internal I/O Structure

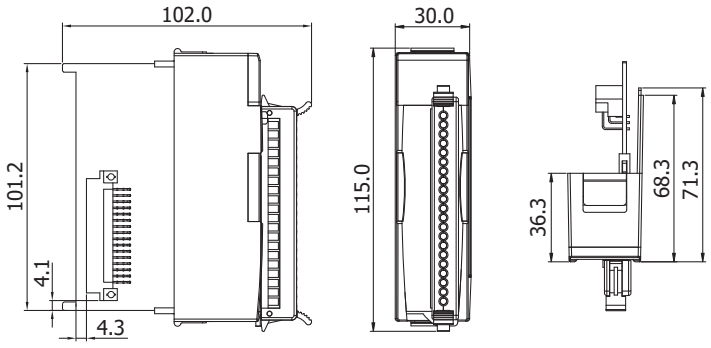
I-87053W-A5



I-87053W-E5



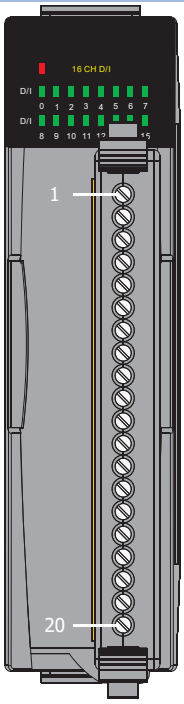
Dimensions



Left View | Front View | Top View

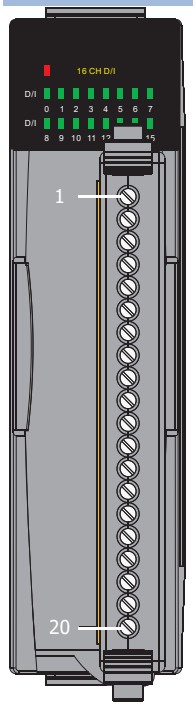
Pin Assignments

I-87053W-A5



Terminal No.	Pin Assignment
01	IN0
02	IN1
03	IN2
04	IN3
05	IN4
06	IN5
07	IN6
08	IN7
09	IN8
10	IN9
11	IN10
12	IN11
13	IN12
14	IN13
15	IN14
16	IN15
17	Wet.COM
18	Wet.COM
19	Dry.GND
20	Dry.GND

I-87053W-E5



Terminal No.	Pin Assignment
01	IN0
02	IN1
03	IN2
04	IN3
05	IN4
06	IN5
07	IN6
08	IN7
09	IN8
10	IN9
11	IN10
12	IN11
13	IN12
14	IN13
15	IN14
16	IN15
17	N.C.
18	N.C.
19	Ext.GND
20	Ext.GND

Accessories

SG-770 CR	16-channel Isolated Digital Input Module with 16-bit Counters (RoHS)

Ordering Information

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

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