



I-87053W | I-87053PW | I-87053W-A2

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

Introduction

The I-87053W, I-87053PW and I-87053W-A2 offer 16 channels for digital input, catering for both dry and wet contact, with an effective distance for dry contact of up to 500 meters. All channels feature photocouple isolation, and can also be used as 16-bit counters. The I-87053W series provides 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. ICP DAS recommends selecting either the "P" or "A2" version of the digital input module for industrial use.

Applications

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

System Specifications

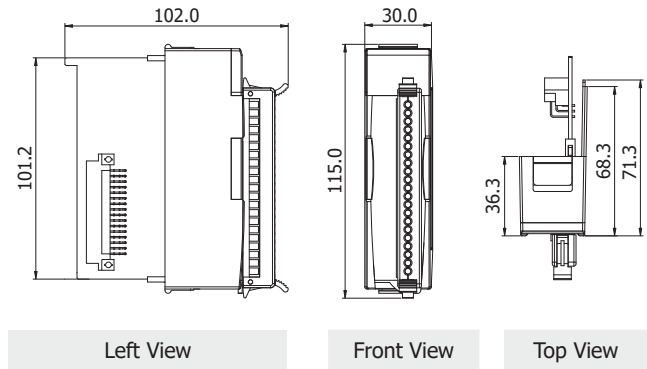
Model	I-87057W	I-87057PW	I-87057W-A2
COM Port			
Ports	RS-485		
Data Format	N, 8, 1		
Baud Rate	1200 ~ 115200 bps		
Protocol	DCON		
CPU Module			
Dual Watchdog Timer	Module (1.6 Seconds), Communication (Programmable)		
LED Indicators			
System LED Indicator	1 LED as Power Indicator		
I/O LED Indicator	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 Point		
Power			
Consumption	0.8 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		

Features

- 16-channel Digital Inputs
- Dry and Wet Contact, Selectable via Wire Connections
- Photocouple Isolation
- Long Distance Measurement
- 4 kV ESD Protection
- All Channels can be used as 16-bit Counters
- 3750 VDC Intra-module Isolation



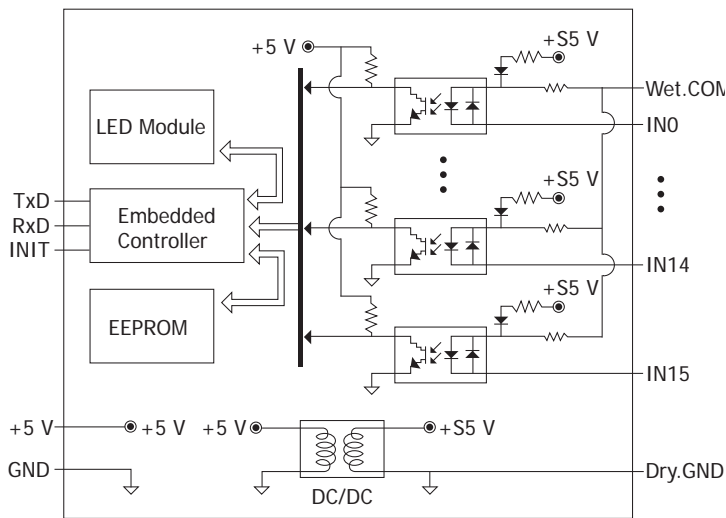
Dimensions



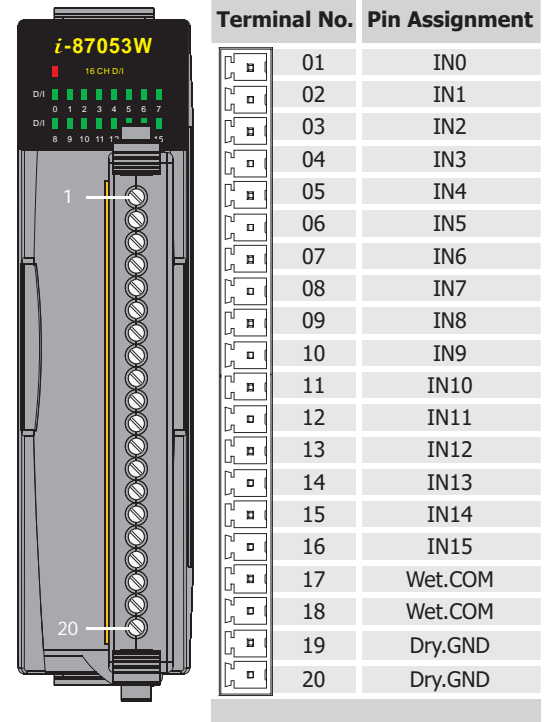
I/O Specifications

Model	I-87057W	I-87057PW	I-87057W-A2
Digital Input/Counter			
Channels	16		
Type	Dry, Wet		
Sink/Source (NPN/PNP)	Sink, Source		
Dry Contact	On Voltage Level	Close to GND.	
	Off Voltage Level	Open	
Wet Contact	On Voltage Level	+3.5 ~ +30 VDC	+19 ~ +30 VDC
			+19 ~ +50 VDC
	Off Voltage Level	+1 VDC Max.	+11 VDC Max.
Input Impedance	3 kΩ, 1 W		10 kΩ, 1 W
Max. Counts	16-bit (65535)		
Frequency	100 Hz		
Min. Pulse Width	5 ms		
Effective Distance	500 m Max.		
Low Pass Filter	Yes		
Overvoltage Protection	50 VDC		100 VDC

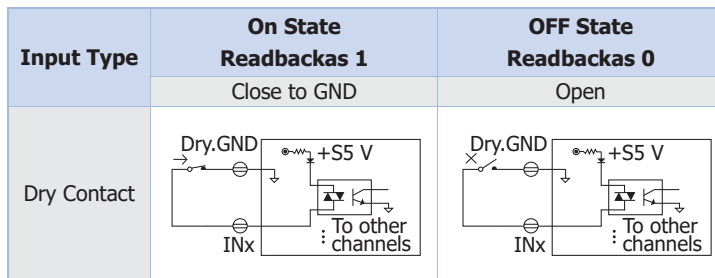
Internal I/O Structure



Pin Assignments



Wire Connections



Input Type	Model	On State Readbacks 1	OFF State Readbacks 0
Wet Contact (Sink)	I-87057W	+3.5 VDC ~ +30 VDC	+1 VDC Max.
	I-87057PW	+19 VDC ~ +30 VDC	+11 VDC Max.
	I-87057W-A2	+19 VDC ~ +50 VDC	+11 VDC Max.
Wet Contact (Sink)	I-87057W	+3.5 VDC ~ +30 VDC	+1 VDC Max.
	I-87057PW	+19 VDC ~ +30 VDC	+11 VDC Max.
	I-87057W-A2	+19 VDC ~ +50 VDC	+11 VDC Max.

Accessories

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

I-87053W-G CR	16-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)
I-87053PW-G CR	16-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)
I-87053W-A2-G CR	16-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)