



Digital Input

2 RS-485 Remote I/O Modules



I-87053W

I-87053PW

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

Features

- Support Digital Inputs (Dry and Wet)
- Photocouple Isolation
- Long Distance Measurement
- 4 KV ESD Protection
- 3750 V_{dc} Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 ~ +75°C



Introduction

I-87053W offers 16 channels for digital input which cover dry contact and wet contact as well. Its effective distance for dry contact is up to 500 meters. All of its channels are not only with isolation but also able to be used as counters. I-87053W has 16 LED indicators for channel status as well as qualification for 4 KV ESD protection and 3750 V_{dc} intra-module isolation.

Applications

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

1 I-87KW Series

System Specifications

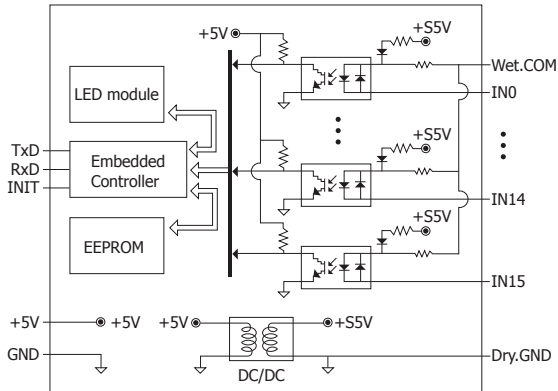
Models	I-87053W	I-87053PW
Communication		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicator/Display		
System LED Indicator	1 LED as Power/Communication Indicator	
I/O LED Indicator	16 LEDs as High/Low Alarm Signals	
Isolation		
Intra-Module Isolation, Field-to-Logic	3750 V _{rms}	
EMS Protection		
ESD (IEC 61000-4-2)	4 kV Contact for Each Terminal	
	8 kV Air for Random Point	
Power		
Power Consumption	0.8 W Max.	
Mechanical		
Dimensions (W x L x H)	30 mm x 102 mm x 115 mm	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

I-87053W/I-87053PW

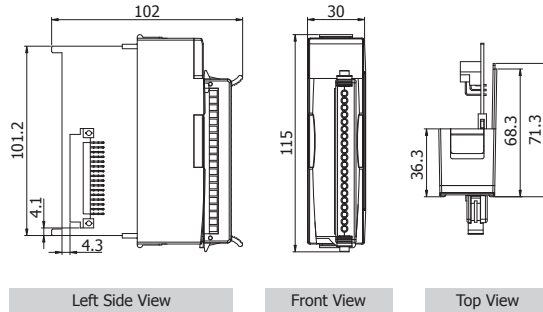
I/O Specifications

Models	I-87053W	I-87053PW	
Digital Input			
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 V _{dc} ~ +30 V _{dc}	+19 V _{dc} ~ +30 V _{dc}
	Off Voltage Level	+1 V _{dc} Max.	+11 V _{dc} Max.
Input Impedance	3 kΩ, 0.33 W		
Counters	Channels	16	
	Max. Counts	16-bit (65535)	
	Max. Input Frequency	100 Hz	
	Min. Pulse Width	5 ms	
Channel to Channel Isolation	Yes		
Low Pass Filter	Yes		
Effective Distance for Dry Contact	500 m Max.		

Internal I/O Structure



Dimensions (Units: mm)

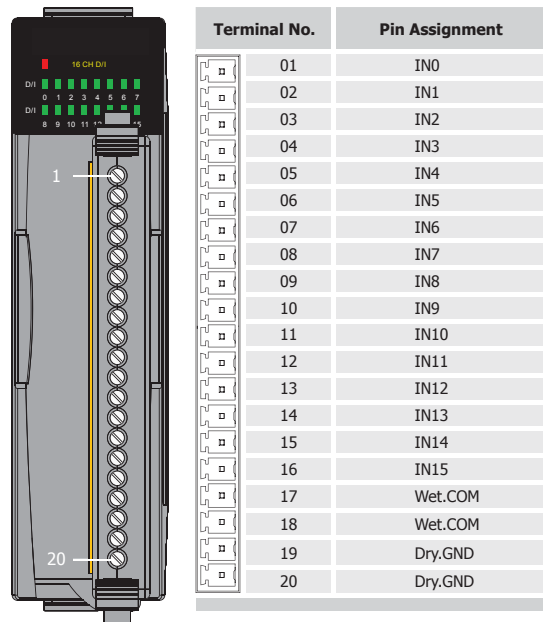


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Wire Connections

Input Type	ON State Readback as 1	OFF State Readback as 0
Dry Contact	Close to GND	Open
Wet Contact (Sink)	+10 Vdc ~ +50 Vdc	+4 Vdc Max.
Wet Contact (Source)	+10 Vdc ~ +50 Vdc	+4 Vdc Max.

Pin Assignments



1 I-87KW Series

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)

Accessories

	SG-770 CR	7 channel differential or 14 channel single-ended surge protector (RoHS)
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