



Features

- Support Digital Inputs (Sink Type)
- Can Be Used As Counters
- 4 KV ESD Protection
- RoHS Compliant
- Wide Operating Temperature Range: -25 ~ +75°C



Introduction

I-87051W offers 16 channels for digital input and supports sink type input. All channels are also able to be used as 16-bit counters. I-87051W not only has 16 LED indicators for channel status but get qualification for 4 KV ESD protection.

Applications

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

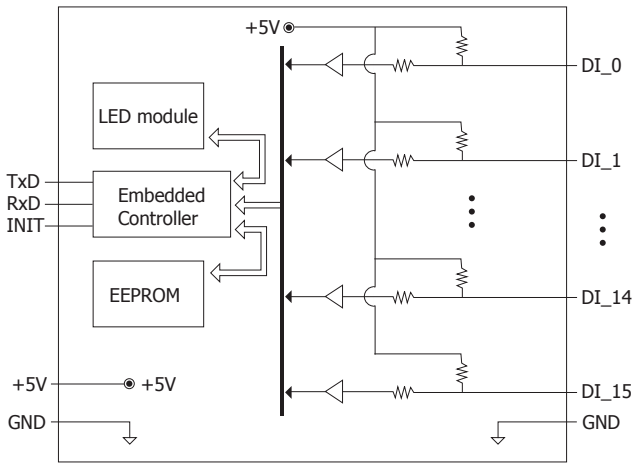
System Specifications

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	-
EMS Protection	
ESD (IEC 61000-4-2)	4 kV Contact for Each Terminal
	8 kV Air for Random Point
Power	
Power Consumption	0.5 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

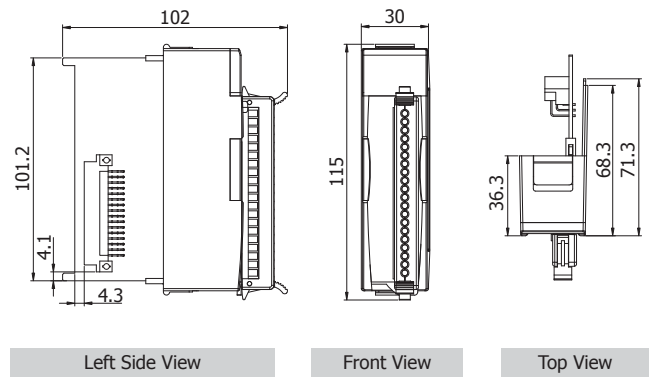
I/O Specifications

Digital Input		
Channels	16	
Type	Dry Contact	
Sink /Source (NPN /PNP)	Source	
Dry Contact	On Voltage Level	Close to GND.
	Off Voltage Level	Open
Wet contact	On Voltage Level	1 V _{dc} Max.
	Off Voltage Level	+3.5 V _{dc} ~ 30 V _{dc}
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	100 m Max.	

Internal I/O Structure



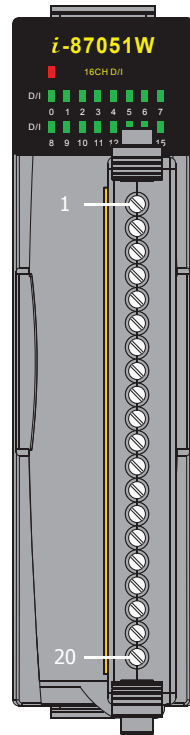
Dimensions (Units: mm)



Wire Connections

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
	Close to GND (+1 V _{DC} Max.)	OPEN (+4 V _{DC} ~ +30 V _{DC})
Dry Contact		

Pin Assignments



Terminal No.	Pin Assignment
01	DI0
02	DI1
03	DI2
04	DI3
05	DI4
06	DI5
07	DI6
08	DI7
09	DI8
10	DI9
11	DI10
12	DI11
13	DI12
14	DI13
15	DI14
16	DI15
17	GND
18	GND
19	GND
20	GND

Ordering Information

I-87051W-G CR	16-channel Non-Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)
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Accessories

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