



## I-87052W

8-channel Isolated Digital Input Module

### Features

- 8-channel Isolated Digital Input
- Sink or Source type Input
- 5000 Vrms Isolation Voltage
- All Channels can be used as 16-bit Counters
- 2 kV Channel-to-Channel Isolation
- $\pm 4$  kV ESD Protection



### Introduction

The I-87052W module offers 8 fully independent differential Digital Input channels that feature 2 kV channel-to-channel Photocouple isolation. In addition, either sink or source type input can be selected via the wire connections, while all channels are able to be used as 16-bit counters. The I-87052W also includes 8 LED indicators that can be used to monitor the status of the Digital Input channels. 4 kV ESD protection and 5000 Vrms intra-module isolation are provided as standard.

### System Specifications

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
I/O LED Indicator	8
Isolation	
Intra-module Isolation, Field-to-Logic	5000 Vrms
EMS Protection	
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact for Each port, $\pm 8$ kV Air for Random Poin
Power	
Consumption	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

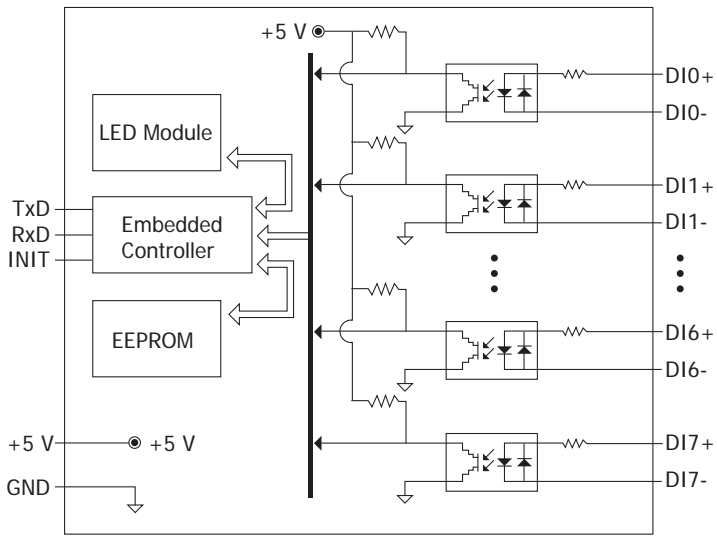
### Applications

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

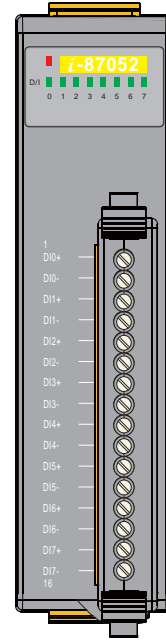
### I/O Specifications

Digital Input/Counter	
Channels	8
Type	Wet, Differential
Sink/Source (NPN/PNP)	Sink, Source
ON Voltage Level	+3.5 VDC ~ 30 VDC
OFF Voltage Level	+1 VDC Max.
Input Impedance	3 k $\Omega$ , 0.25 W
Max. Counts	16-bit (65535)
Frequency	100 Hz
Min. Pulse Width	5 ms
Low Pass Filter	Yes
Channel-to-Channel Isolation	2 kV

## Internal I/O Structure



## Pin Assignments

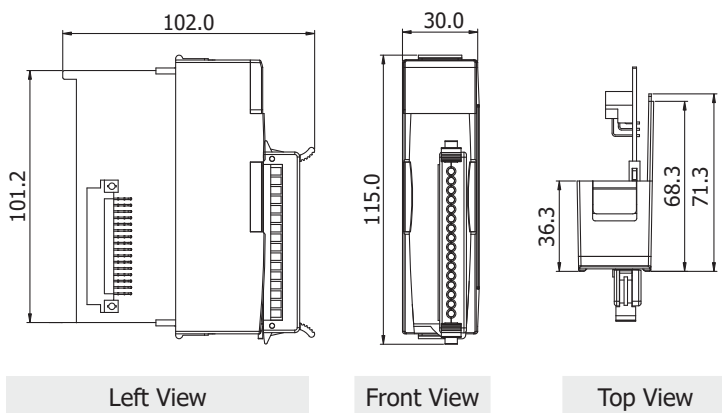


Terminal No.	Pin Assignment
01	DI0+
02	DI0-
03	DI1+
04	DI1-
05	DI2+
06	DI2-
07	DI3+
08	DI3-
09	DI4+
10	DI4-
11	DI5+
12	DI5-
13	DI6+
14	DI6-
15	DI7+
16	DI7-

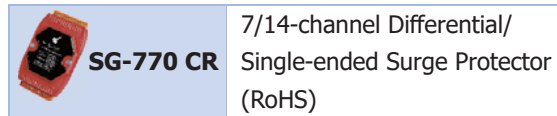
## Wire Connections

ON State Readback as 1	ON State Readback as 0	ON State Readback as 1	ON State Readback as 0
Close to GND (+1 VDC Max.)	OPEN (+4 V ~ +30 VDC)	Close to GND (+1 VDC Max.)	OPEN (+4 V ~ +30 VDC)

## Dimensions (Unit: mm)



## Accessories



## Ordering Information

<b>I-87052W-G CR</b>	8-channel Isolated Digital Input Module with 2 kV Channel-to-Channel Isolation (RoHS)
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