



### Introduction

The I-87063W module provides 4 isolated Digital Input channels and 4 Form C Relay Output channels. All Digital Input channels can be used as 16-bit counters. In addition, either sink- or source-type Digital Input can be selected via the wire connections. The I-87063W includes 8 LED indicators that can be used to monitor the status of the Digital Input and Relay Output, and options are available for configuring power-on and safe values. 4 kV ESD protection and 3750 Vdc intra-module isolation are also provided to enhance the noise protection capabilities of the module in harsh industrial environments.

### System Specifications

Communication	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 to 115200 bps
Protocol	DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)
LED Indicators/Display	
System LED Indicators	Yes, 1 as Power/Communication Indicator
I/O LED Indicators	8 as Digital Input and Relay output Indicators
Isolation	
Intra-module Isolation, Field-to-Logic	3750 Vrms
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
	±8 kV Air for Random Point
Power	
Power Consumption	1.5 W Max.
Mechanical	
Dimensions (L x W x H)	115 mm x 30 mm x 102 mm
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-40 to +85°C
Humidity	10 to 95% RH, Non-condensing

### Features

- 4-channel Digital Input and 4-channel Relay Output
- Form C Power Relay Output
- Sink- and Source-type Digital Input Channels
- Digital Input Channels can be used as 16-bit Counters
- Configurable Power-on Value
- Configurable Safe Value
- 4 kV ESD Protection
- 3750 Vdc Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 to +75°C



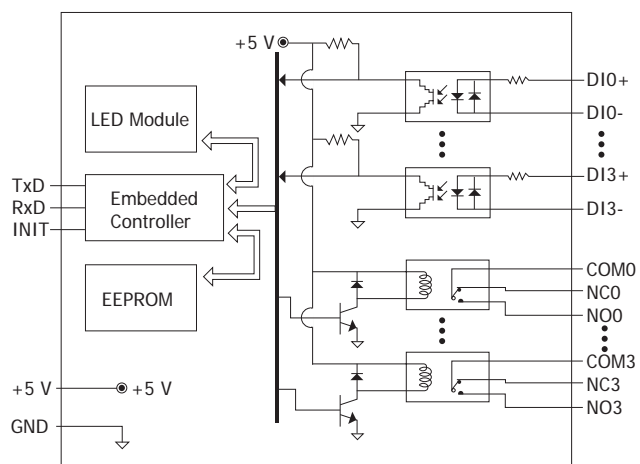
### Applications

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

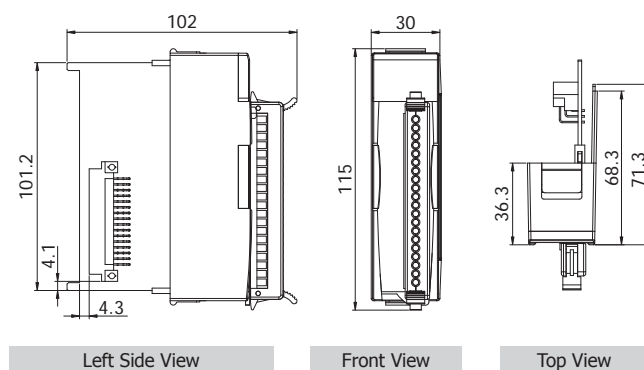
### I/O Specifications

Digital Input		
Channels		4
Type		Wet Contact
Sink/Source (NPN/PNP)		Sink, Source
ON Voltage Level		+3.5 VDC ~ +30 Vdc
OFF Voltage Level		+1 Vdc Max.
Input Impedance		3 kΩ, 0.25 W
Counters	Channels	4
	Max. Count	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Channel-to-Channel Isolation		-
Low Pass Filter		Yes
Effective Distance for Dry Contact		-
Relay Output		
Channels		4 (Form C)
Type		Power Relay
Form C Relay	Contact Rating	5 A (NO)/3 A (NC) @ 30 Vdc (Resistive Load) 5 A (NO)/3 A (NC) @ 277 Vac (Resistive Load)
	Min. Contact Load	100 mA @ 5 Vdc
	Contact Material	Silver Tin Alloy
	Operate Time	10 ms (max.)
	Release Time	5 ms (max.)
	Mechanical Endurance	5 x 10 <sup>6</sup> ops.
	Electrical Endurance	1 x 10 <sup>5</sup> ops.
Power-on Value		Yes
Safe Value		Yes

## Internal I/O Structure



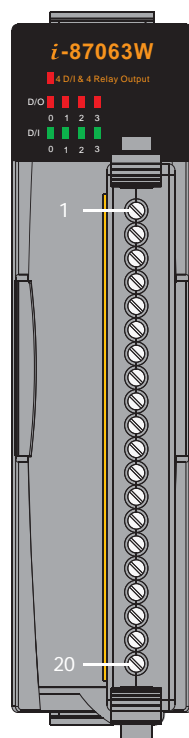
## Dimensions (Units: mm)



## Wire Connections

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Sink	OPEN or $< +1$ V <sub>DC</sub>	$+4 \sim +30$ V <sub>DC</sub>
Source	OPEN or $< +1$ V <sub>DC</sub>	$+4 \sim +30$ V <sub>DC</sub>
Output Type	ON State Readback as 1	OFF State Readback as 0
Relay Output		

## Pin Assignments



Terminal No.	Pin Assignment
01	DI0+
02	DI0-
03	DI1+
04	DI1-
05	DI2+
06	DI2-
07	DI3+
08	DI3-
09	NO0
10	NC0
11	COM0
12	NO1
13	NC1
14	COM1
15	NO2
16	NC2
17	COM2
18	NO3
19	NC3
20	COM3

## Ordering Information

I-87063W-G CR	4-channel Isolated Digital Input and 4-channel Relay Output Module using the DCON Protocol (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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