



I-87063W

4-channel Isolated Digital Input and
4-channel Relay Output Module

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 (W × L × H)	30 mm × 115 mm × 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 V_{DC} Intra-module Isolation



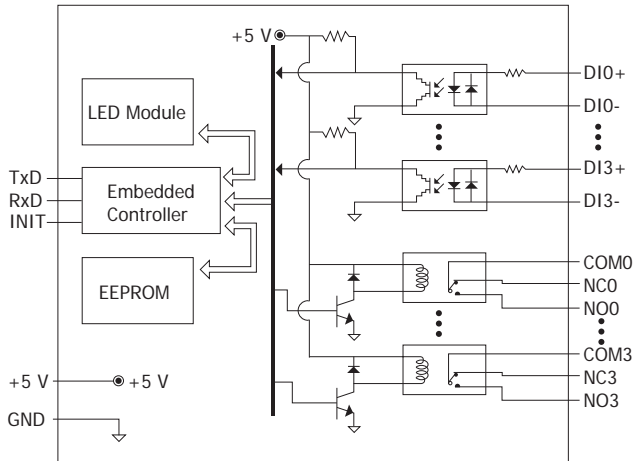
Applications

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

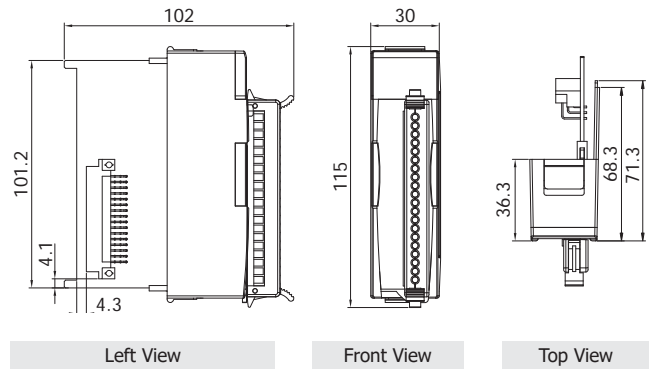
I/O Specifications

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 × 10 ⁶ ops.
Electrical Endurance	1 × 10 ⁵ ops.	
Power-on Value	Yes	
Safe Value	Yes	

Internal I/O Structure



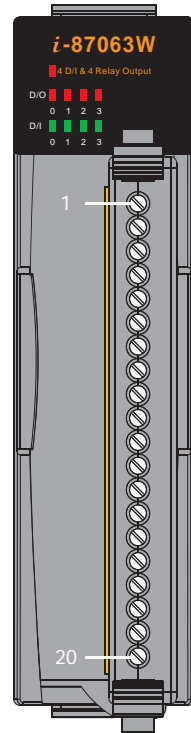
Dimensions (Units: mm)



Wire Connections

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Sink	OPEN or $< +1$ VDC	$+4 \sim +30$ VDC
Source	OPEN or $< +1$ VDC	$+4 \sim +30$ VDC
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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