

I-87055W-G

8-channel Non-isolated Digital Input and
8-channel Non-isolated Digital Output Module

Features

- 8-channel Non-isolated Digital Input and 8-channel Non-isolated Digital Output
- Sink-type Digital Output Channels
- Dry Contact Digital Input Channels
- All Digital Input Channels can be used as 16-bit Counters
- All Channels are Non-isolated
- 4 kV ESD Protection
- Configurable Power-on Value
- Configurable Safe Value
- RoHS Compliant
- Wide Operating Temperature Range: -25 to +75°C

Introduction

The I-87055W module offers 8 non-isolated Digital Input channels and 8 non-isolated Digital Output channels. All Digital Input channels are also able to be used as 16-bit counters. The I-87055W supports sink-type Digital Output and Digital Input with dry contact connections. The I-87055W includes 16 LED indicators that can be used to monitor the status of the Digital Input and Digital Output channels, and options are available for configuring both power-on and safe values. 4 kV ESD protection is provided for the Digital Input and Digital Output channels as standard.

Applications

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

System Specifications

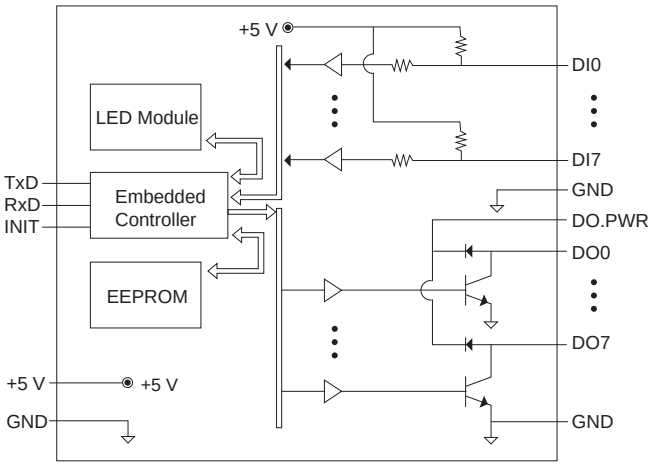
Communication	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 to 115200 bps
Protocol	DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)
LED Indicators/Display	
System LED Indictors	Yes, 1 as Power/Communication Indicator
I/O LED Indicators	16 as High/Low Alarm Signals
Isolation	
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	0.6 W Max.
Mechanical	
Dimensions (L × W × H)	115 mm × 30 mm × 102 mm
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-40 to +85°C
Humidity	10 to 95% RH, Non-condensing

I/O Specifications

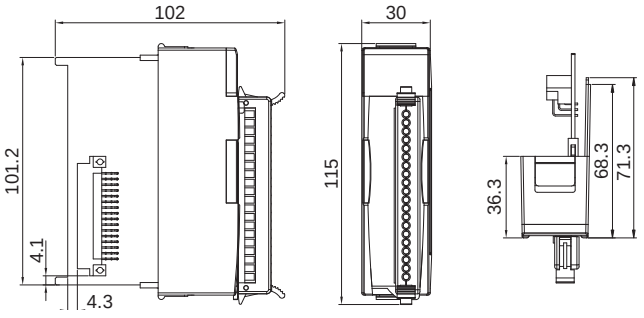
Digital Input		
Channels		8
Type		Dry Contact
Sink/Source (NPN/PNP)		Sink
ON Voltage Level		Close to GND
OFF Voltage Level		Open
Counters	Channels	8
	Max. Count	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Channel-to-Channel Isolation		-
Low Pass Filter		Yes
Effective Distance for Dry Contact		100 m Max.
Digital Output		
Channels		8
Type		Open Collector
Sink/Source (NPN/PNP)		Sink
Load Voltage		+5 VDC ~ +30 VDC
Max. Load Current		100 mA/channel
Short Circuit Protection		-
Power-on Value		Yes
Safe Value		Yes

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Internal I/O Structure

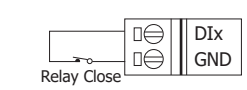
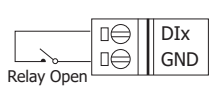
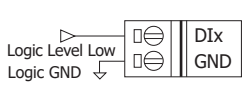
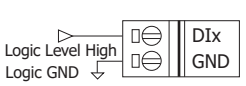
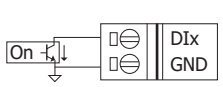
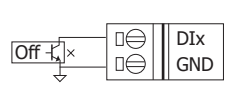


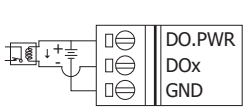
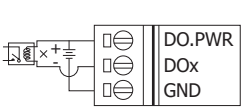
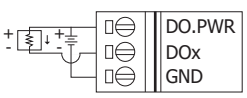
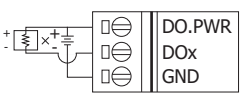
Dimensions (Units: mm)



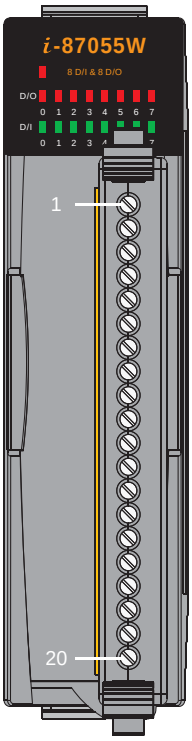
Left View | Front View | Top View

Wire Connections

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Relay Contact	Relay ON	Relay OFF
		
TTL/ CMOS Logic	Voltage < +1 V	Voltage > +3.5 V
		
Open Collector	Open Collector ON	Open Collector OFF
		

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay	Relay ON	Relay OFF
		
Resistance Load		

Pin Assignments



Terminal No.	Pin Assignment
01	DI0
02	DI1
03	DI2
04	DI3
05	DI4
06	DI5
07	DI6
08	DI7
09	GND
10	GND
11	GND
12	DO0
13	DO1
14	DO2
15	DO3
16	DO4
17	DO5
18	DO6
19	DO7
20	DO.PWR

Ordering Information

I-87055W-G CR	8-channel Non-isolated Digital Input and 8-channel Non-isolated Digital Output Module using the DCON Protocol (Gray Cover) (RoHS)

Accessories

 RM-104/108/116	4/8/16-channel 16A Power Relay Board, 1 Form C
 RM-204/208/216	4/8/16-channel 8A Power Relay Board, 2 Form C
 DN-SSR4	4-channel 1A Solid-state Relay Board, 1 Form A

 RM-22.22	1-channel 20 A Power Relay for Direct 35 mm Rail (EN 50022) Mounting, 2 Form A
 SG-770 CR	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)

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