



Introduction

I-87054W offers 8-channel isolated digital inputs and 8-channel isolated digital outputs. For digital input, you can choose sink type or source type input by wire connections. All DI channels are also able to be used as 16-bit counters. I-87054W has 16 LED indicators for both DI & DO channel status.

Features

- Support Digital Inputs (Sink Type or Source Type)
- Support Digital Outputs
- Photocouple Isolation
- DI Can Be Used As Counters
- 4 kV ESD Protection
- 3750 V_{DC} Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 ~ +75°C



Applications

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

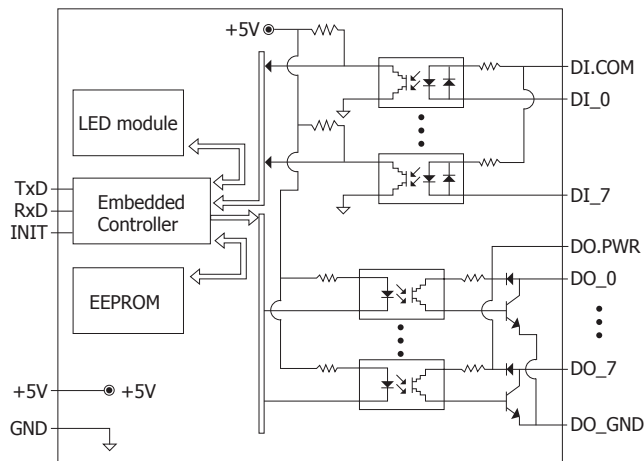
System Specifications

Communication	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 ~ 115200 bps
Protocol	DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)
Safe Value(When Host Fail or Communication Fail)	Yes
Power-on Preset Value	Yes
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	3750 V _{rms}
EMS Protection	
ESD (IEC 61000-4-2)	4 kV Contact for Each Terminal
	8 kV Air for Random Point
Power	
Power Consumption	0.7 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

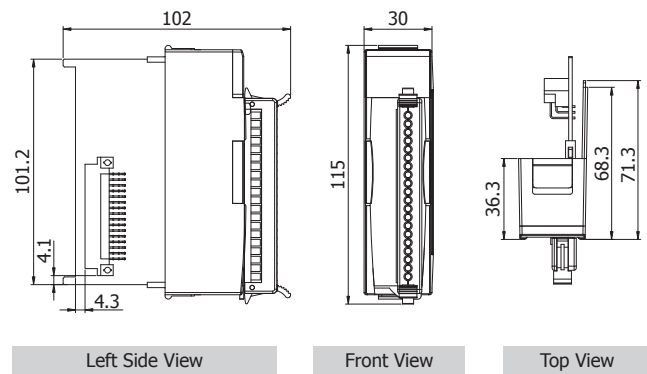
I/O Specifications

Digital Input		
Channels		8
Type		Wet Contact
Sink /Source (NPN /PNP)		Sink, Source
On Voltage Level		+3.5 V _{DC} ~ 50 V _{DC}
Off Voltage Level		+1 V _{DC} Max.
Input Impedance		10 KΩ, 0.66 W
Counters	Channels	8
	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		-
Digital Output		
Channels		8
Type		Open Collector
Sink /Source (NPN /PNP)		Sink
Load Voltage		5 V _{DC} ~ 50 V _{DC}
Max. Load Current		700mA/ channel
Overvoltage Protection		60 V _{DC}
Overload Protection		Yes
Short-circuit and Overcurrent Protection		Yes, 1.4 A
Thermal Overload Trip Temperature		150°C
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
	OPEN or <1 V _{DC}	+4 ~ +30 V _{DC}
Sink		
Source		

Output Type	ON State Readback as 1	OFF State Readback as 0
Digital Output (Resistance Load)		
Digital Output (Inductive Load)		

Pin Assignments

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

Ordering Information

I-87054W-G	8-channel Isolated Digital Input and 8-channel Isolated Digital Output Module with 16-bit Counters (Gray Cover) (RoHS)
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Accessories

	RM-104/108/116 Power Relay Module ,1 form C
	RM-204/208/216 Power Relay Module ,2 form C
	DN-SSR4 4-channel Solid state Relay Module ,1 form A

	RM-22.22 2 Pole, 20 A relay for direct 35 mm rail (EN 50022) mounting
	SG-770 CR 7 channel differential or 14 channel single-ended surge protector (RoHS)