



## I-87024W-G I-87024RW-G

4-channel 14-bit Analog Output Module

### Introduction

The I-87024W is a 4-channel analog output module that provides either current or voltage output. There are options to set Power-on and safe values. The I-87024W also features 4 kV ESD protection and 3000 Vdc intra-module isolation.

The I-87024RW is a 4-channel analog output module. The programmable AO channels provide 14-bit resolution and support an output range of 0 ~ +5 V, ±5 V, 0 ~ +10 V, ±10 V, 0 ~ +20 mA, or +4 ~ +20 mA. The I-87024RW has the same specifications as the I-87024W, but the output quality is improved in a harsh environments.

### System Specifications

Model	I-87024W	I-87024RW	
<b>Communication</b>			
Interface	RS-485		
Format	N, 8, 1		
Baud Rate	1200 to 115200 bps		
Protocol	DCON		
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)		
<b>LED Indicators/Display</b>			
System LED Indicators	Yes, 1 as Power/Communication Indicator		
I/O LED Indicators	-		
<b>Isolation</b>			
Intra-module Isolation, Field-to-Logic	3000 VDC		
<b>EMS Protection</b>			
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal		
	±8 kV Air for Random Point		
<b>Power</b>			
Power Consumption	Typical	1.3 W Max.	1.1 W Max.
	Maximum	2.8 W (4-channels Output, 20 mA at 10 V)	3.2 W (4-channel Output, 20 mA at 10 V)
<b>Mechanical</b>			
Dimensions (L × W × H)	114 mm × 30 mm × 85 mm		
<b>Environment</b>			
Operating Temperature	-25 to +75°C		
Storage Temperature	-40 to +85°C		
Humidity	10 to 95% RH, Non-condensing		

### Features

- Current Output or Voltage Output
- Power-on Value
- Safe Value
- 4 kV ESD Protection
- 3000 VDC Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 to +75°C



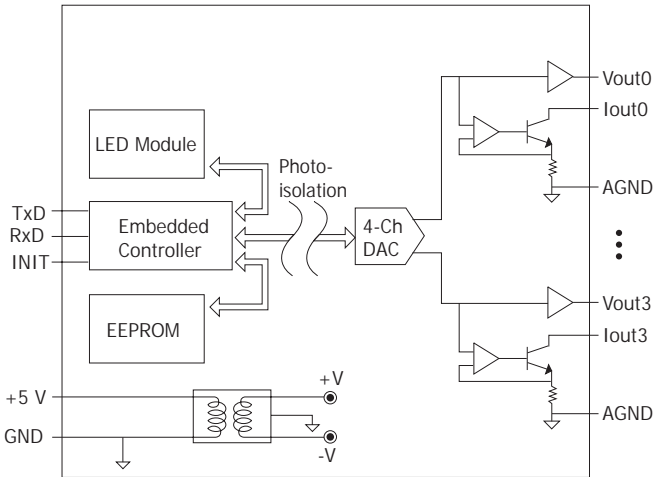
### Applications

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

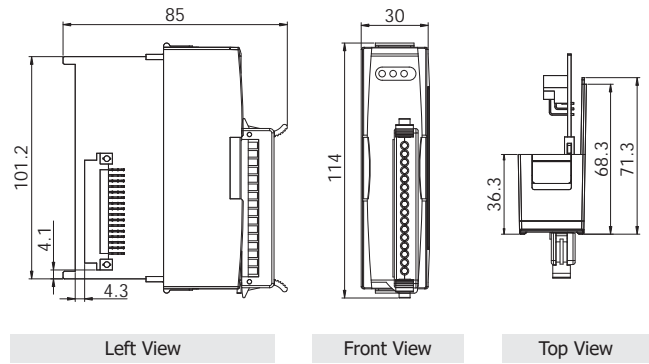
### I/O Specifications

Model	I-87024W	I-87024RW
<b>Analog Output</b>		
Channels	4	
Current Output Wiring	Sink	
Range	0 ~ +5 VDC, ±5 VDC, 0 ~ +10 VDC, ±10 VDC, 0 ~ +20 mA, +4 ~ +20 mA	
Resolution	14-bit	
Accuracy	±0.1% of FSR	
Zero Drift	Voltage	±30 μV/°C
	Current	±0.2 μA/°C
Span Drift	±20 ppm/°C	
Analog Output Response Time	10 ms per channel	
Programmable Output Slope	0.125 to 2048 mA/second	
	0.0625 to 1024 V/second	
Output Capacity	Voltage	10 VDC @ 5 mA
	Current	External +24 VDC @ 1050 Ω
Open Wire Detection	-	
Short Circuit Protection	Yes	
Power-on Value	Yes	
Safe Value	Yes	

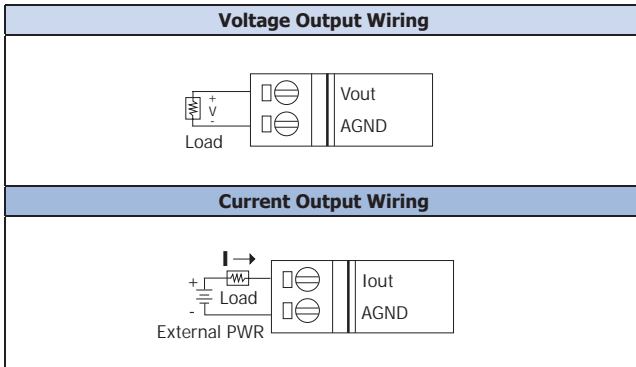
## Internal I/O Structure



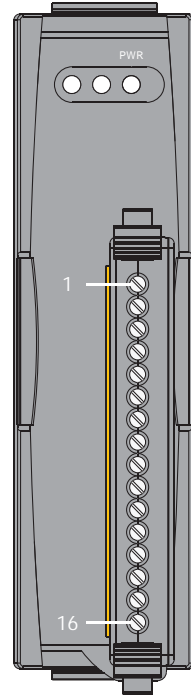
## Dimensions (Units: mm)



## Wire Connections



## Pin Assignments




Terminal No.	Pin Assignment
01	Iout0
02	AGND
03	Iout1
04	AGND
05	Iout2
06	AGND
07	Iout3
08	AGND
09	Vout0
10	AGND
11	Vout1
12	AGND
13	Vout2
14	AGND
15	Vout3
16	AGND

## Ordering Information

<b>I-87024W-G CR</b>	4-channel 14-bit Analog Output Module (Gray Cover) (RoHS)
<b>I-87024RW-G CR</b>	4-channel 14-bit Analog Output Module with RF Immunity (Gray Cover) (RoHS)

## Accessories

 <b>SG-770 CR</b>	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)
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