



I-87024CW | I-87024UW

4-channel Isolated Analog Output Module

Features

- I-87024UW
  - 4-channel Voltage or Current Output
  - Individual Channel Configuration
  - 2500 VDC Intra-module Isolation
- I-87024CW
  - 1 kV Channel-to-Channel Isolation
- Open Wire Detection for Current Output
- RF Immunity
- Short Circuit Protection
- Power-on Value Setting
- Safe Value Setting

Introduction

The I-87024CW is a 4-channel current output module that features channel-to-channel isolation and also has qualification for 4 KV ESD protection and 1000 VDC intra-module isolation. Options for configuring power-on and safe values are also included.

The I-87024UW is a source type analog output module that includes 4 single-ended analog output channels, and provides options for setting power-on and safe value. It also provides a programmable output range analog outputs(0 ~ 5 V, +/-5 V, 0 ~ 10 V, +/-10 V, +4 ~ +20 mA or 0 ~ +20 mA), and each analog output can be configured for an individual range and provides an RF immunity level matching that defined by IEC 61000-4-3. The module also features per-channel open wire detection for +4 ~ +20 mA output, together with 4 KV ESD protection as well as 2500 VDC intra-module isolation.

System Specifications

Model	I-87024CW	I-87024UW
CPU Module		
Dual Watchdog Timer	Module (1.6 Seconds), Communication (Programmable)	
COM Ports		
Ports	1 x RS-485	
Baud Rate	1200 ~ 115200 bps	
Data Format	N, 8, 1	
Protocol	DCON	
LED Indicators		
Status	Power/Communication x 1	Power/Communication x 1, I/O x 16
Isolation		
Intra-module Isolation	1000 VDC	2500 VDC
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal, ±8 kV Air for Random Point	
RS Immunity (IEC 61000-4-3)	-	3 V/m, 80 MHz ~ 1 GHz
Power		
Consumption	0.9 W Max.	
Reverse Polarity Protection	-	Yes
Powered from Terminal Block	-	15 ~ 30 VDC
Consumption	-	4.0 W
Mechanical		
Dimensions (L × W × H)	117 mm × 32 mm × 96 mm	115 mm × 30 mm × 102 mm
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 95 % RH, Non-condensing	

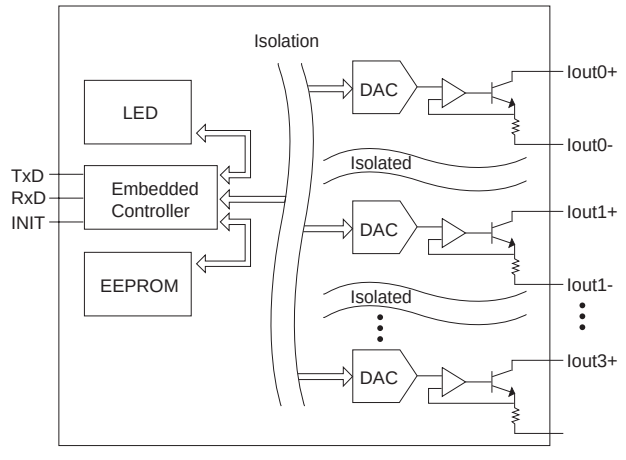
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I/O Specifications

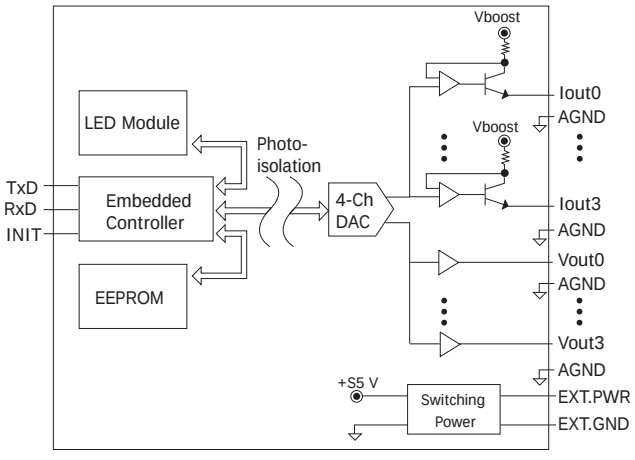
Model	I-87024CW	I-87024UW
Analog Output		
Channels	4	
Current Output Wiring	Sink	Source
Range	Current:0 ~ +20 mA, +4 ~ +20 mA	Voltage: 0 ~ +5 VDC, ±5 VDC, 0 ~ +10 VDC, ±10 VDC Current:0 ~ +20 mA, +4 ~ +20 mA
Resolution	12-bit	16-bit
Accuracy	±0.1% of FSR	±0.02% of FSR
Zero Drift	±0.2 μV/°C	
Span Drift	±25 ppm/°C	
DA Output Response Time	10 ms per channel	
Programmable Output Slope	Current: 0.125 ~ 1024 mA/sec.	Voltage: 0.0625 ~ 512 V/sec. Current: 0.125 ~ 1024 mA/sec.
Output Capacity	External +24 VDC @ 1050 Ω	1000 Ω
Channel-to-Channel Isolation	1 kV	-
Open Wire Detection	+4 ~ +20 mA	
Short Circuit Protection	-	Yes
Power-on Value	Yes	
Safe Value	Yes	

Internal I/O Structure

I-87024CW



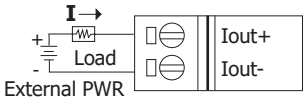
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Wire Connections

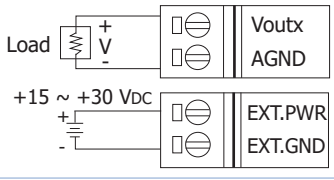
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Current Output Wiring

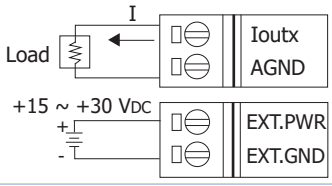


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Voltage Output Wiring



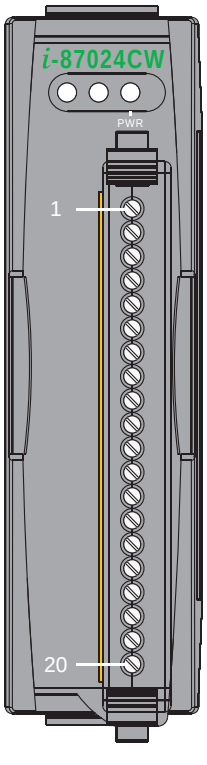
Current Output Wiring



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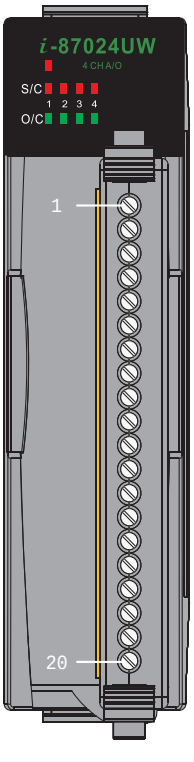
Pin Assignments

I-87024CW



Terminal No.	Pin Assignment
01	N.C.
02	N.C.
03	Iout0+
04	Iout0-
05	N.C.
06	N.C.
07	N.C.
08	Iout1+
09	Iout1-
10	N.C.
11	N.C.
12	N.C.
13	Iout2+
14	Iout2-
15	N.C.
16	N.C.
17	N.C.
18	Iout3+
19	Iout3-
20	N.C.

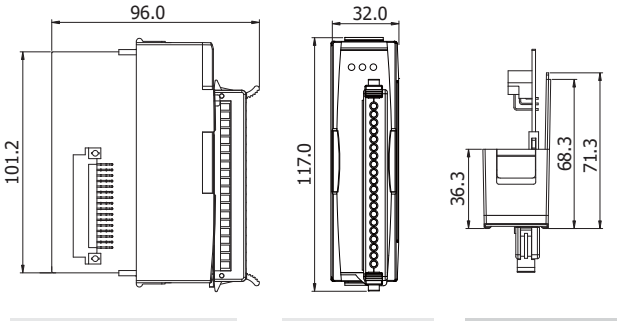
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Terminal No.	Pin Assignment
01	Iout0
02	AGND
03	Iout1
04	AGND
05	Iout2
06	AGND
07	Iout3
08	AGND
09	Vout0
10	AGND
11	Vout1
12	AGND
13	Vout2
14	AGND
15	Vout3
16	AGND
17	EXT.PWR
18	EXT.PWR
19	EXT.GND
20	EXT.GND

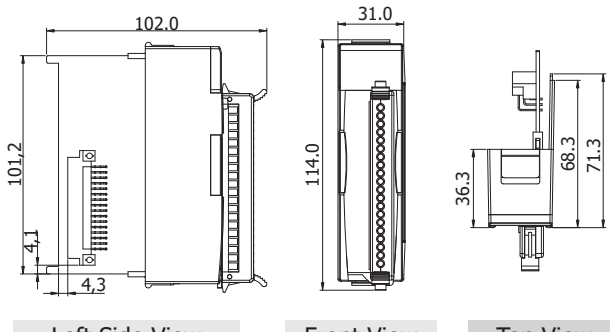
Dimensions (Units: mm)

I-87024CW



Left Side View | Front View | Top View

I-87024UW



Left Side View | Front View | Top View

Accessories

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

Ordering Information

I-87024CW-G CR	4-channel 12-bit Channel-to-Channel Isolated Current Output Module with Open-wire Detection (RoHS)
I-87024UW-G CR	4-channel 16-bit Isolated Source Type Voltage or Current Output Module (RoHS)

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