



I-87024CW-G I-87024UW-G

4-channel Isolated Source Type Voltage or Current Output module

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
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	16 as High/Low Alarm Signals	-
Isolation		
Intra-module Isolation, Field-to-Logic	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		
Power Consumption	0.9 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	

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
- Safe Value
- 4 kV ESD Protection
- Wide Operating Temperature Range: -25 to +75°C



Applications

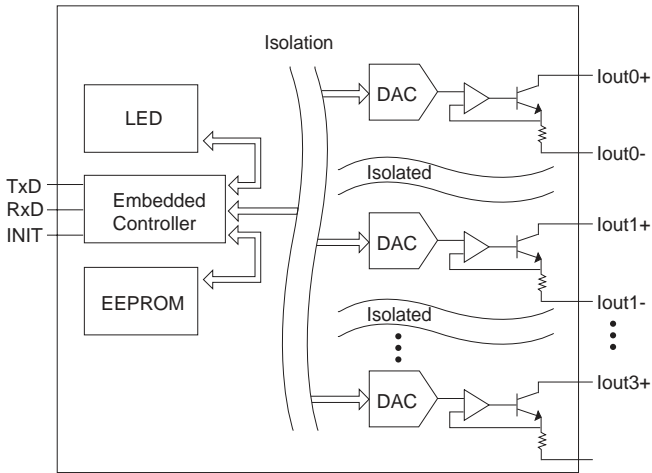
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

I/O Specifications

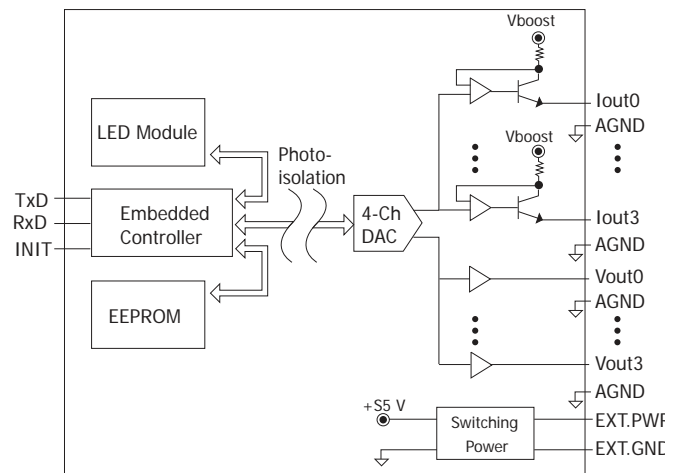
Model	I-87024CW	I-87024UW
Analog Output		
Channels	4	
Current Output Wiring	Sink	Source
Range	0 ~ +20 mA, +4 ~ +20 mA	0 ~ +5 VDC, ±5 VDC, 0 ~ +10 VDC, ±10 VDC, 0 ~ +20 mA, +4 ~ +20 mA
Resolution	12-bit	16-bit
Accuracy	±0.1% of FSR	±0.02% of FSR
Zero Drift	±0.2 μV/°C	
Span Drift	±25 ppm/°C	
DA Output Response Time	10 ms per channel	
Programmable Output Slope	Voltage	-
	Current	0.125 ~ 1024 mA/Second
Output Capacity	External +24 VDC @ 1050 Ω	1000 Ω
Channel-to-Channel Isolation	Yes, 1 kV	-
Open Wire Detection	Yes, +4 ~ +20 mA	
Short Circuit Protection	Yes	
Power-on Value	Yes	
Safe Value	Yes	
External Power Requirements		
Reverse Polarity Protection	-	Yes
Powered from Terminal Block	-	Yes, 15 ~ 30 Vdc
Consumption	-	4.0 W

Internal I/O Structure

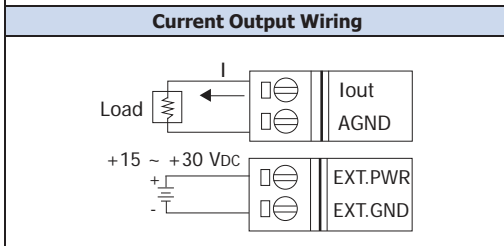
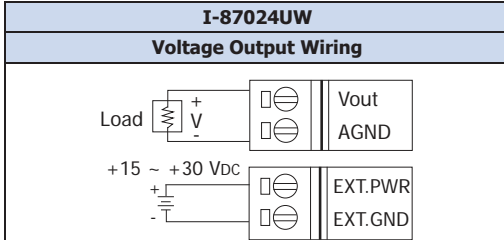
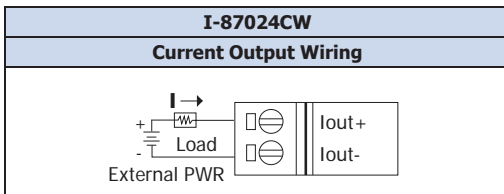
I-87024CW



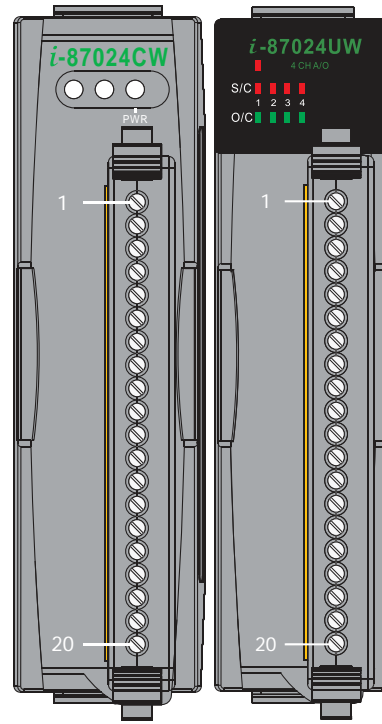
I-87024UW



Wire Connections

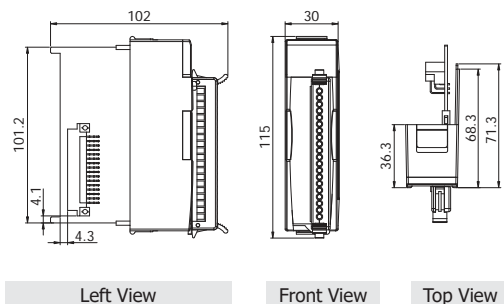


Pin Assignments



Terminal No.	Pin Assignment	
	I-87024CW	I-87024UW
01	N.C.	Iout0
02	N.C.	AGND
03	Iout0+	Iout1
04	Iout0-	AGND
05	N.C.	Iout2
06	N.C.	AGND
07	N.C.	Iout3
08	Iout1+	AGND
09	Iout1-	Vout0
10	N.C.	AGND
11	N.C.	Vout1
12	N.C.	AGND
13	Iout2+	Vout2
14	Iout2-	AGND
15	N.C.	Vout3
16	N.C.	AGND
17	N.C.	EXT.PWR
18	Iout3+	EXT.PWR
19	Iout3-	EXT.GND
20	N.C.	EXT.GND


Dimensions (Units: mm)



Ordering Information

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

Accessories

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