



## I-87028CW I-87028UW

8-channel Isolated Source Type Voltage or Current module

### Introduction

The I-87028CW is an 8-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-87028UW is a source type analog output module that includes 8 single-ended analog output channels, and allows a programmable output range on all analog outputs channels (0 ~ 5 V, +/- 5 V, 0 ~ 10 V, +/- 10 V, +4 ~ +20 mA or 0 ~ +20 mA). Each analog output channel can be configured for an individual range and provides an RF immunity level matching that defined by the IEC 61000-4-3 standard. Voltage and current outputs are jumper selectable, and the module also features per-channel open wire detection for +4 ~ +20 mA and 0 ~ +20mA outputs, together with 4 kV ESD protection as well as 2500 VDC intra-module isolation. Options for configuring power-on and safe values are also included.

### System Specifications

Model	I-87028CW	I-87028UW
<b>Communication</b>		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
<b>LED Indicators/Display</b>		
System LED Indicator	1 LED as Power/Communication Indicator	
I/O LED Indicator	-	
<b>Isolation</b>		
Intra-module Isolation, Field-to-Logic	1000 Vdc	2500 Vdc
<b>EMS Protection</b>		
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
<b>Power</b>		
Power Consumption	1.4 W Max.	0.9 W Max.
<b>Mechanical</b>		
Dimensions (W x L x H)	31 mm x 81 mm x 114 mm	
<b>Environment</b>		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

### Features

- I-87028UW
  - 8-channel Voltage or Current Output
  - Jumper Selectable Voltage or Current Output
  - Individual Channel Configuration
  - 2500 VDC Intra-module Isolation
- I-87028CW
  - 1 kV Channel-to-Channel Isolation
- Open Wire Detection for Current Output
- RF Immunity
- Short Circuit Protection
- Power-on Value
- Safe
- 4 kV ESD Protection
- Wide Operating Temperature Range: -25 ~ +75°C



### Applications

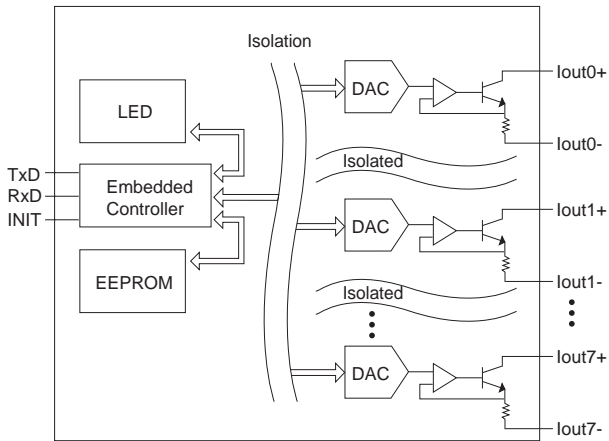
Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment.

### I/O Specifications

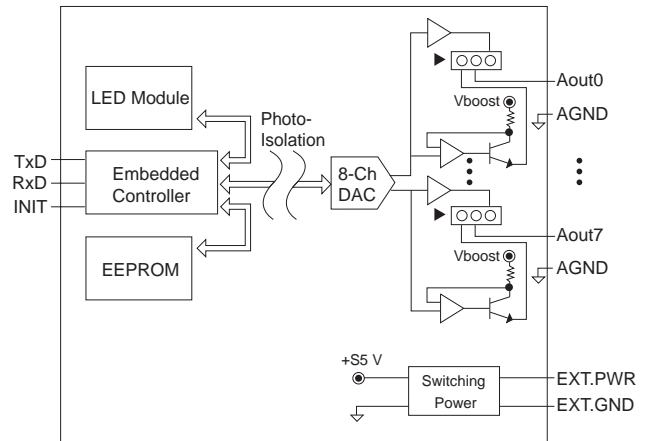
Model	I-87028CW	I-87028UW
<b>Analog Output</b>		
Channels	8	
Current Output Wiring	Sink	Source
Range	0 ~ +20 mA, +4 ~ +20 mA	0 ~ +5 Vdc, ±5 Vdc, 0 ~ +10 Vdc, ±10 Vdc, 0 ~ +20 mA, +4 ~ +20 mA
Resolution	12-bit	16-bit
Accuracy	+/- 0.1% of FSR	+/- 0.02% of FSR
Zero Drift	+/- 0.2 µV/°C	
Span Drift	+/- 25 ppm/°C	
DA Output Response Time	10 ms per channel	
Programmable Output Slope	Voltage	0.0625 ~ 512 V/Second
	Current	0.125 ~ 1024 mA/Second
Output Capacity	External +24 Vdc @ 1050 Ω	1000Ω
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	
<b>External Power Requirements</b>		
Reverse Polarity Protection	-	Yes
Powered from Terminal Block	-	Yes, 15 ~ 30 Vdc
Consumption	-	7.0 W

## Internal I/O Structure

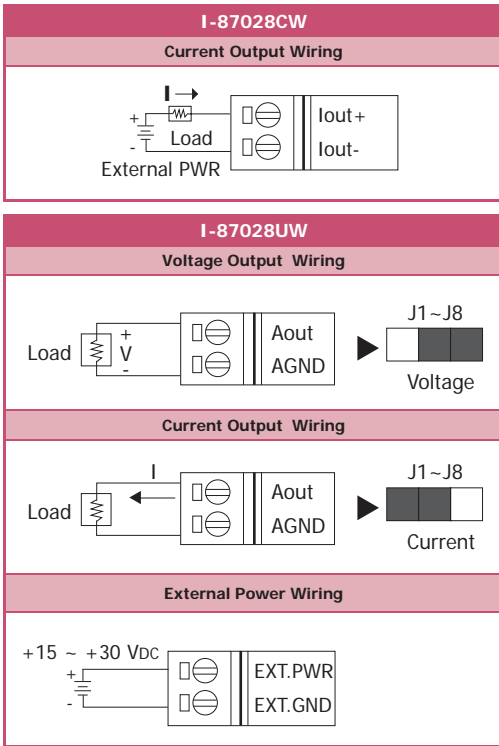
I-87028CW



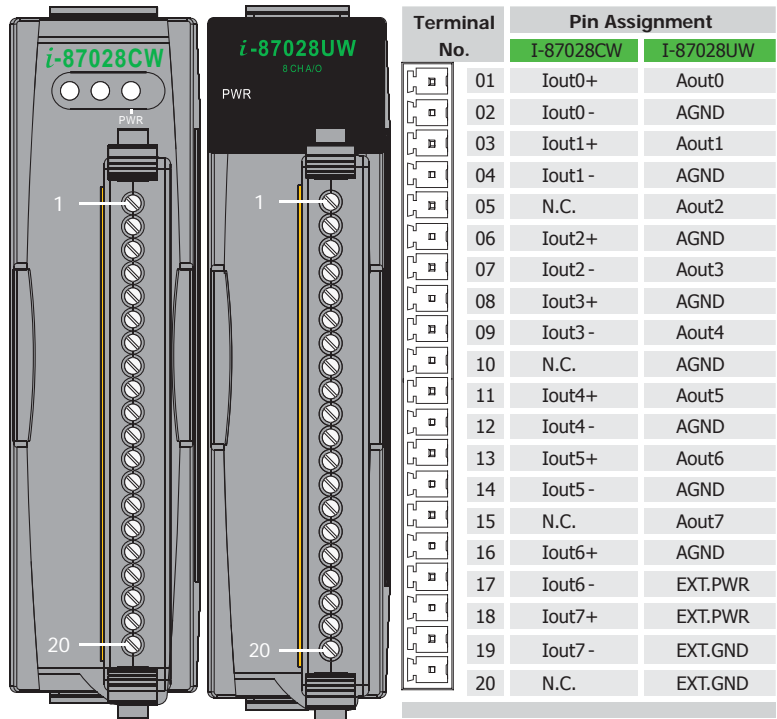
I-87028UW



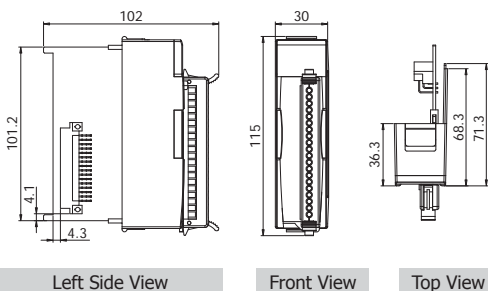
## Wire Connections



## Pin Assignments



## Dimensions (Units: mm)



## Ordering Information

I-87028CW-G CR	8-channel 12-bit Channel-to-Channel Isolated Current Output Module with Open-wire Detection (Gray Cover) (RoHS)
I-87028UW-G CR	8-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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