



I-97024U

4 Channel Isolated
Analog Output Module



I-97028U

8 Channel Isolated
Analog Output Module

Features

- 4/8 Channel Voltage/Current Output
- Source Current Output Wiring
- Individual Channel Configuration
- Short Circuit Protection
- Power-on Value
- Safe Value
- 4 kV ESD Protection
- 3000 VDC Intra-module Isolation



Introduction

The I-97024U and I-97028U are source type analog output modules, which offer 4 and 8 single-ended analog output channels. Every channel can be programmed to an individual output range of 0 to 5 V, ± 5 V, 0 to 10 V, ± 10 V, +4 to +20 mA or 0 to +20 mA. Open wire detection is provided for +4 to +20 mA output. Options for configuring power-on and safe values are also included.

The I-97024U and I-97028U provide RF immunity level matching that defined by IEC 61000-4-3 standard, together with 4 kV ESD protection as well as 3000 VDC intra-module isolation.

System Specifications

Model	I-97024U	I-97028U
LED Display		
Status	1 x Power/Communication 8 x Analog Output Fault	
Isolation		
Intra-module Isolation, Field-to-Logic	3000 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	4 W Max.	
Reverse Polarity Protection	Yes	
Powered from Terminal Block	15 ~ 30 VDC	
Mechanical		
Dimensions (W x L x H)	31 mm x 134 mm x 144 mm	
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 90 % RH, Non-condensing	

I/O Specifications

Model	I-97024U	I-97028U
Analog Output		
Channels	4	8
Current Output Wiring	Source	
Resolution	16-bit	
Range	0 ~ +5 VDC, ± 5 VDC, 0 ~ +10 VDC, ± 10 VDC, 0 ~ +20 mA, +4 ~ +20 mA	
Accuracy	± 0.02 % of FSR	
Zero Drift	± 0.2 μ V/°C	
Span Drift	± 25 ppm/°C	
Short Circuit Protection	Yes	
Response Time	10 ms per channel	
Programmable Output Slope	Voltage: 0.0625 ~ 512 V/Second Current: 0.125 ~ 1024 mA/Second	
Open Wire Detection	+4 ~ +20 mA	
Voltage Output Capability	1000 Ω	
Power-on Value	Yes	
Safe Value	Yes	
COM Ports		
Ports	1 x RS-485	
Baud Rate	1200 ~ 115200 bps	
Data Format	N, 8, 1	
Protocol	DCON	

Pin Assignments

I-97024U

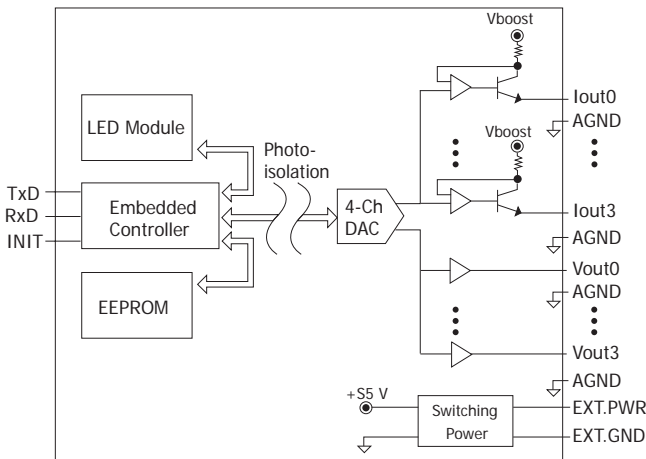
Pin Assignment	Terminal No.	Terminal No.	Pin Assignment
Vout0	01	17	Vout1
Iout0	02	18	Iout1
AGND	03	19	AGND
Vout2	04	20	Vout3
Iout2	05	21	Iout3
AGND	06	22	AGND
-	07	23	-
-	08	24	-
-	09	25	-
-	10	26	-
-	11	27	-
-	12	28	-
EXT.PWR	13	29	EXT.PWR
EXT.PWR	14	30	EXT.PWR
EXT.GND	15	31	EXT.GND
EXT.GND	16	32	EXT.GND

I-97028U

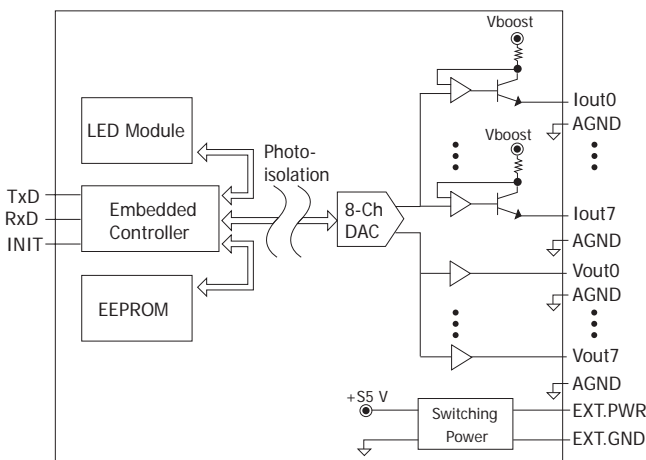
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Iout0	02	18	Iout1
AGND	03	19	AGND
Vout2	04	20	Vout3
Iout2	05	21	Iout3
AGND	06	22	AGND
Vout4	07	23	Vout5
Iout4	08	24	Iout5
AGND	09	25	AGND
Vout6	10	26	Vout7
Iout6	11	27	Iout7
AGND	12	28	AGND
EXT.PWR	13	29	EXT.PWR
EXT.PWR	14	30	EXT.PWR
EXT.GND	15	31	EXT.GND
EXT.GND	16	32	EXT.GND

Internal I/O Structure

I-97024U

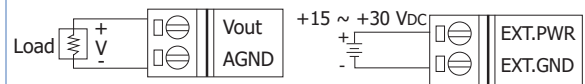


I-97028U

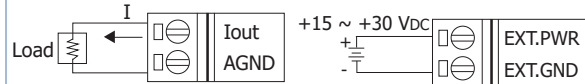


Wire Connections

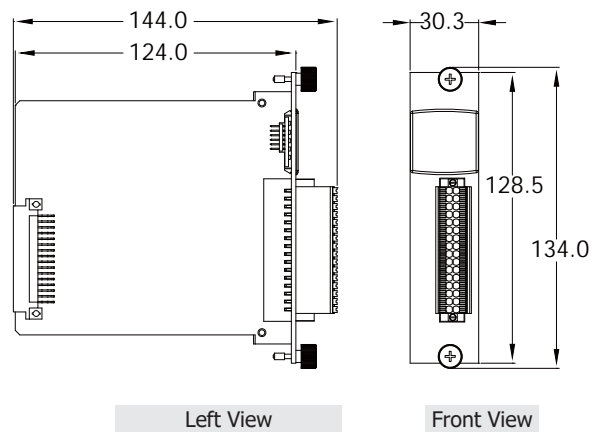
Voltage Output Wiring




Current Output Wiring



Dimensions (Units: mm)



Accessories

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

I-97024U CR	4-ch Isolated Analog Output Module (RoHS)
I-97028U CR	8-ch Isolated Analog Output Module (RoHS)