



I-9024U

4 Channel Isolated
Analog Output Module

I-9028U

8 Channel Isolated
Analog Output Module

Introduction

The I-9024U and I-9028U are source type analog output modules, offering 4 and 8 single-ended analog output channels. Each channel can be programmed to an individual output range of 0 ~ 5 V, ±5 V, 0 ~ 10 V, ±10 V, +4 ~ +20 mA or 0 ~ +20 mA. Open wire detection is provided for +4 ~ +20 mA output. Options for configuring power-on and safe values are included, together with qualification for 4 kV ESD protection as well as 3000 VDC intramodule isolation.

Application

- Data Acquisition System
- Process Monitoring and Control
- Vibration Analysis
- Factory Automation

System Specifications

| Model | I-9024U | I-9028U |
|--|---------------------------------|---------|
| LED Display | | |
| System LED Indicator | 1 LED as Power Indicator | |
| Isolation | | |
| Intra-module Isolation, Field-to-Logic | 2500 VDC | |
| EMS Protection | | |
| ESD (IEC 61000-4-2) | ±4 kV Contact for each Terminal | |
| Power | | |
| Consumption | 2 W Max. | |
| Mechanical | | |
| Dimensions (W x L x H) | 31 mm x 129 mm x 114 mm | |
| Environment | | |
| Operating Temperature | -25 ~ +75 °C | |
| Storage Temperature | -40 ~ +85 °C | |
| Humidity | 10 ~ 90 % RH, Non-condensing | |

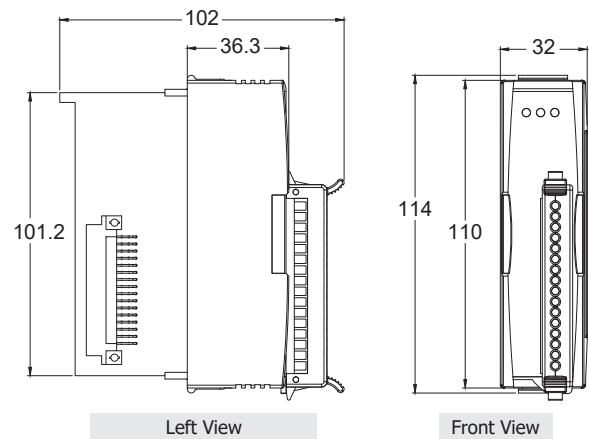
Features

- 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



Dimensions (Units: mm)

I-9024U/I-9028U



I/O Specifications

| Model | I-9024U | I-9028U |
|-----------------------------|---|---------|
| 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 μV/°C | |
| Span Drift | ±25 ppm/°C | |
| Short Circuit Protection | Yes | |
| Response Time | 105 us per channel | |
| Programmable Output Slope | Voltage: 0.5 V/us Current: 0.024 mA/us | |
| Power-on Value | Yes | |
| Safe Value | Yes | |
| Isolation | | |
| Reverse Polarity Protection | Yes | |
| Powered from Terminal Block | 15 ~ 30 VDC | |
| Isolation | 3000 VDC | |

Pin Assignments

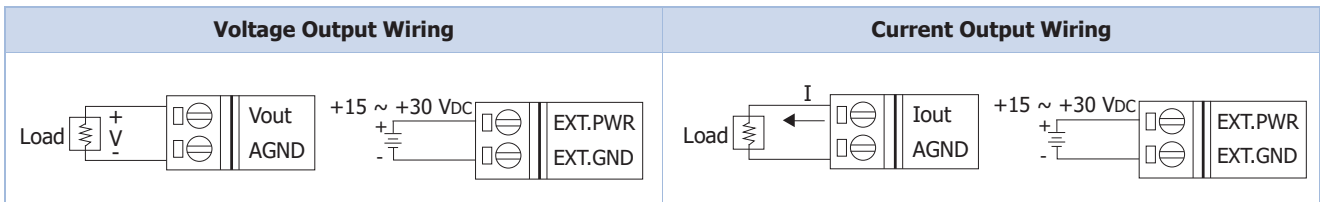
I-9024U

| 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 | 15 | Iout3 |
| AGND | 06 | 16 | AGND |
| - | 07 | 17 | - |
| - | 08 | 18 | - |
| - | 09 | 19 | - |
| - | 10 | 20 | - |
| - | 11 | 21 | - |
| - | 12 | 22 | - |
| EXT.PWR | 13 | 23 | EXT.PWR |
| EXT.PWR | 14 | 24 | EXT.PWR |
| EXT.GND | 15 | 25 | EXT.GND |
| EXT.GND | 16 | 26 | EXT.GND |

I-9028U

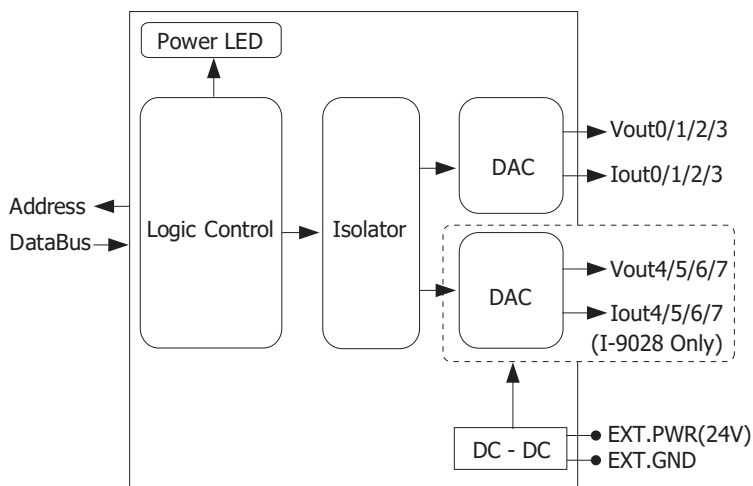
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| Vout0 | 01 | 17 | Vout1 |
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| AGND | 03 | 19 | AGND |
| Vout2 | 04 | 20 | Vout3 |
| Iout2 | 05 | 15 | Iout3 |
| AGND | 06 | 16 | AGND |
| Vout4 | 07 | 17 | Vout5 |
| Iout4 | 08 | 18 | Iout5 |
| AGND | 09 | 19 | AGND |
| Vout6 | 10 | 20 | Vout7 |
| Iout6 | 11 | 21 | Iout7 |
| AGND | 12 | 22 | AGND |
| EXT.PWR | 13 | 23 | EXT.PWR |
| EXT.PWR | 14 | 24 | EXT.PWR |
| EXT.GND | 15 | 25 | EXT.GND |
| EXT.GND | 16 | 26 | EXT.GND |

Wire Connections



Internal I/O Structure

I-9024U/I-9028U



Accessories

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

Ordering Information

| | |
|-------------------|--|
| I-9024U CR | 4-channel Isolated Analog Output Module (RoHS) |
| I-9028U CR | 8-channel Isolated Analog Output Module (RoHS) |