



## I-9024

### 4 Channel Isolated Voltage/Current Output Module

#### Features

- 4 Channel Voltage/Current Output
- Sink Current Output Wiring
- Individual Channel Configuration
- 4 kV ESD Protection
- 3000 VDC Intra-module Isolation



#### Introduction

The I-9024 is a 14-bit analog output module, which offers 4 single-ended analog output channels. Every channel can be programmed to an individual output range of  $\pm 10$  V or  $0 \sim +20$  mA. The I-9024 provides 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.

#### Application

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

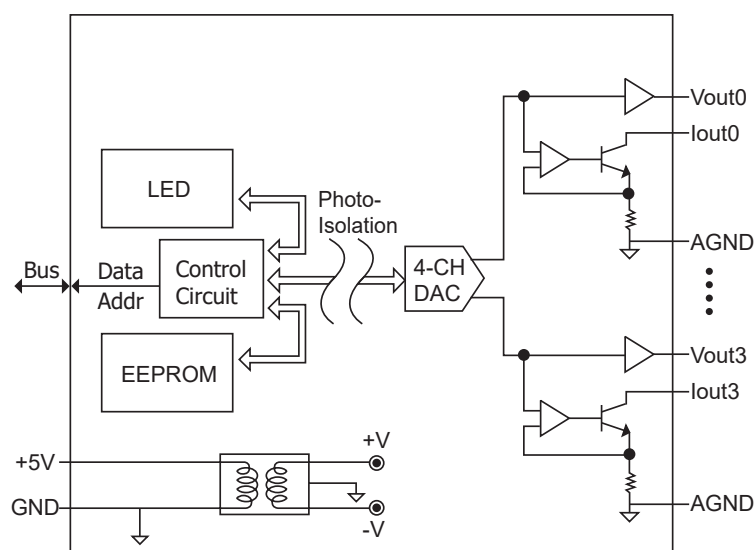
#### System Specifications

| LED Display                            |                                                                         |
|----------------------------------------|-------------------------------------------------------------------------|
| System LED Indicator                   | 1 LED as Power Indicator                                                |
| Isolation                              |                                                                         |
| Intra-module Isolation, Field-to-Logic | 3000 VDC                                                                |
| EMS Protection                         |                                                                         |
| ESD (IEC 61000-4-2)                    | $\pm 4$ kV Contact for each Terminal<br>$\pm 8$ kV Air for Random Point |
| Power                                  |                                                                         |
| Consumption                            | 2 W Max.                                                                |
| Mechanical                             |                                                                         |
| Dimensions (W x L x H)                 | 31 mm x 134 mm x 144 mm                                                 |
| Environment                            |                                                                         |
| Operating Temperature                  | $-25 \sim +75$ °C                                                       |
| Storage Temperature                    | $-40 \sim +85$ °C                                                       |
| Humidity                               | 10 ~ 90 % RH, Non-condensing                                            |

#### I/O Specifications

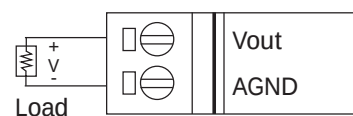
| Analog Output             |                               |                       |
|---------------------------|-------------------------------|-----------------------|
| Channels                  | 4                             |                       |
| Current Output Wiring     | Sink                          |                       |
| Resolution                | 14-bit                        |                       |
| Range                     | $\pm 10$ V, $0 \sim +20$ mA   |                       |
| Accuracy                  | Voltage                       | $\pm 0.1$ % of FSR    |
|                           | Current                       | $\pm 0.2$ % of FSR    |
| Zero Drift                | Voltage                       | $\pm 30$ $\mu$ V/ °C  |
|                           | Current                       | $\pm 0.2$ $\mu$ A/ °C |
| Span Drift                | $\pm 20$ ppm/°C               |                       |
| Readback Accuracy         | $\pm 1$ % of FSR              |                       |
| Voltage Output Capability | 10 V @ 20 mA                  |                       |
| Current Load Resistance   | External +24 V: 1050 $\Omega$ |                       |

## Internal I/O Structure

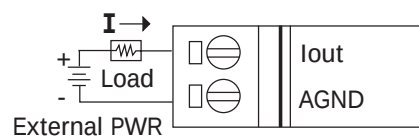


## Wire Connections

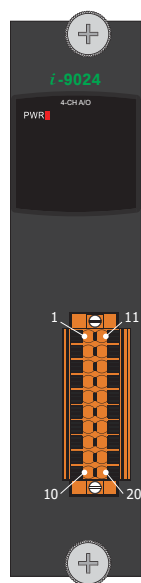
### Voltage Output Wiring



### Current Output Wiring

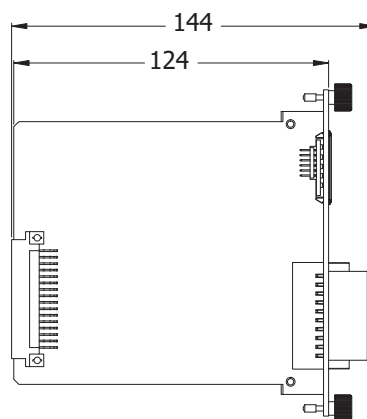


## Pin Assignments

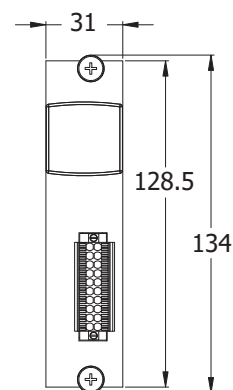


| Pin Assignment | Terminal No. | Pin Assignment |
|----------------|--------------|----------------|
| VO0            | 01           | I0             |
| AGND           | 02           | AGND           |
| VO1            | 03           | I1             |
| AGND           | 04           | AGND           |
| VO2            | 05           | I2             |
| AGND           | 06           | AGND           |
| VO3            | 07           | I3             |
| AGND           | 08           | AGND           |
| -              | 09           | -              |
| F.G            | 10           | F.G            |

## Dimensions (Units: mm)



Left View



Front View

## Ordering Information

**I-9024 CR**

4-channel Isolated Analog Output Module (RoHS)