



I-7022

M-7022

2-channel Analog Output Module

Features

- 2-channel Analog Output
- Software Selectable Current or Voltage Output
- Power-on Value Setting
- Safe Value Setting
- Open Wire Detection for Current Output
- Readback Voltage or Current
- 2 kV Channel to Channel Isolation
- 3000 Vdc Intra-module Isolation
- Programmable Output Slope
- Dual Watchdog
- Wide Operating Temperature Range: -25 to +75°C



Introduction

The I-7022 is a 12-bit, 2-channel Analog Output module that is designed for both voltage and current output using the DCON protocol. The I-7022 features 3000 VDC intra-module isolation, and the power source for the current output can be selected as either internal or external via a jumper. Options are also provided to allow power-on and safe values to be set. The M-7022 supports both the Modbus RTU and the DCON protocols which can be configured via software, and all hardware specifications are the same as the I-7022.

Applications

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

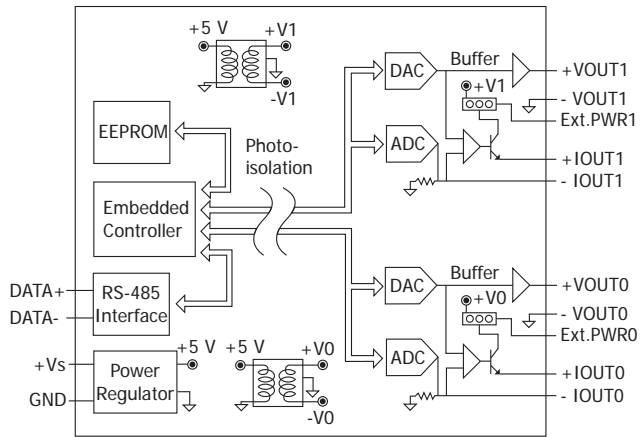
System Specifications

| Model | I-7022 | M-7022 |
|--|--|------------------|
| Communication | | |
| Interface | RS-485 | |
| Bias Resistor | No (Usually supplied by the RS-485 Master. Alternatively, add a tM-SG4 or SG-785.) | |
| Format | (N, 8, 1) (N, 8, 2) (E, 8, 1) (O, 8, 1) | |
| Baud Rate | 1200 to 115200 bps | |
| Protocol | DCON | Modbus RTU, DCON |
| Dual Watchdog | Yes, Module (1.6 Seconds), Communication (Programmable) | |
| LED Indicators/Display | | |
| System LED Indicator | Yes, 1 as Power/Communication Indicator | |
| I/O LED Indicators | - | |
| 7-segment LED Display | - | |
| Isolation | | |
| Intra-module Isolation, Field-to-Logic | 3000 Vdc | |
| EMS Protection | | |
| ESD (IEC 61000-4-2) | ±4 kV Contact for each Terminal | |
| EFT (IEC 61000-4-4) | ±4 kV to Power Line | |
| Surge (IEC 61000-4-5) | ±0.5 kV for Power Line | |
| Power | | |
| Reverse Polarity Protection | Yes | |
| Input Range | +10 ~ +30 Vdc | |
| Consumption | 3.0 W | |
| Mechanical | | |
| Dimensions (L x W x H) | 123 mm x 72 mm x 35 mm | |
| Installation | DIN-Rail or Wall Mounting | |
| Environment | | |
| Operating Temperature | -25 to +75°C | |
| Storage Temperature | -40 to +85°C | |
| Humidity | 10 to 95% RH, Non-condensing | |

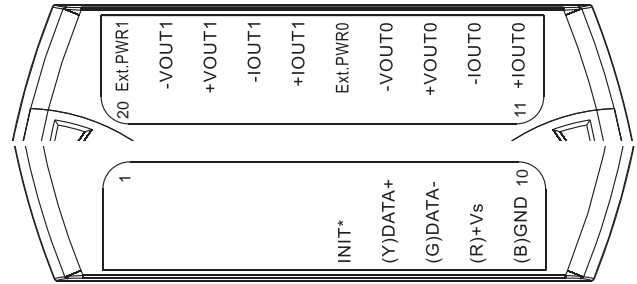
I/O Specifications

| Model | I-7022 | M-7022 |
|--|------------------------|--------------------------|
| Analog Output | | |
| Channels | 2 | |
| Range | Voltage | 0 ~ +5 V, 0 ~ +10 V, |
| | Current | 0 ~ +20 mA, +4 ~ +20 mA |
| Resolution | 12-bit | |
| Accuracy | 0.1% | |
| Readback Accuracy | ±0.5% of FSR | |
| DA Output Response Time | 10 ms | |
| Programmable Output Slope | Voltage | 0.0625 ~ 1024.0 V/Second |
| | Current | 0.125 ~ 2048 mA/Second |
| Current Load Resistance | Internal Power: 500 Ω | |
| | External Power: 1050 Ω | |
| Open Wire Detection (for current only) | Yes | |
| Channel-to-Channel Isolation | Yes, 2 kV | |
| Short Circuit Protection | Yes | |
| Power-on Value | Yes | |
| Safe Value | Yes | |

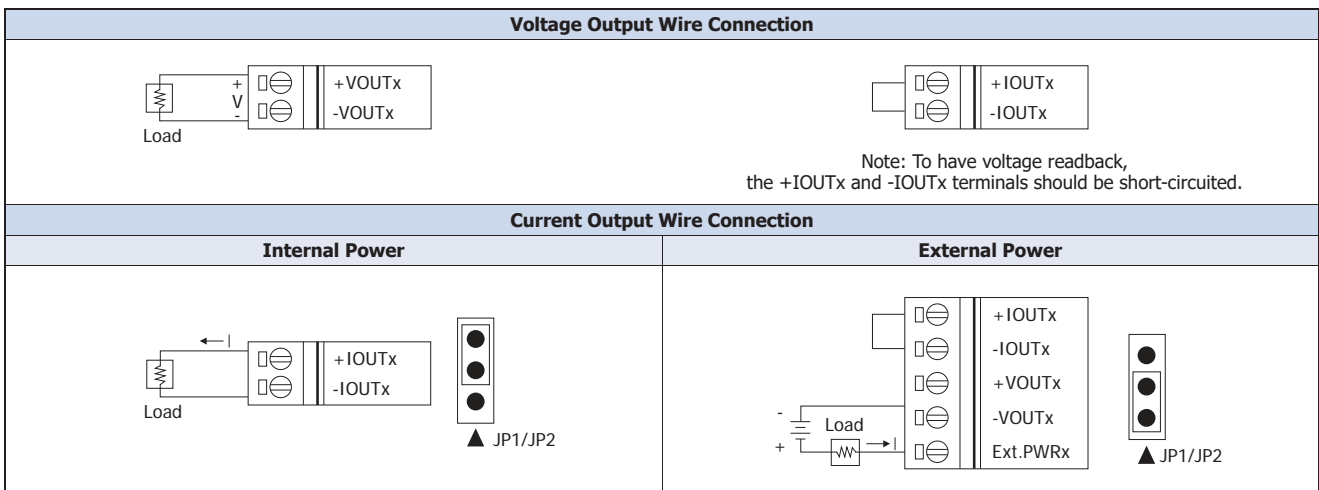
Internal I/O Structure



Pin Assignments



Wire Connections



Ordering Information

| | |
|--------------------|---|
| I-7022 CR | 2-channel Analog Output Module using the DCON Protocol (Channel-to-Channel Isolation) (Blue Cover) (RoHS) |
| I-7022-G CR | 2-channel Analog Output Module using the DCON Protocol (Channel-to-Channel Isolation) (Gray Cover) (RoHS) |
| M-7022-G CR | 2-channel Analog Output Module using the DCON and Modbus Protocols (Channel-to-Channel Isolation) (Gray Cover) (RoHS) |

Accessories

| | | |
|--|----------------|--|
| | tM-7520U CR | RS-232 to RS-485 Converter (RoHS) |
| | tM-7561 CR | USB to RS-485 Converter (RoHS) |
| | tM-SG4 CR | RS-485 Bias and Termination Resistor Module (RoHS) |
| | I-7514U CR | 4-channel RS-485 Hub (RoHS) |
| | SG-770 CR | 7-channel Differential or 14-channel Single-ended Surge Protector (RoHS) |
| | SG-3000 Series | Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers |