



I-7024/I-7024R M-7024/M-7024R/ M-7024L

4-ch 14-bit AO Module

Features

- I-7024 / M-7024 / M-7024L
 - 4 Analog Outputs
- I-7024R / M-7024R
 - 4 Analog Outputs and 5 Digital Inputs
- Software Selectable Current or Voltage Output
- Configurable Power-on Value and Safe Value Settings
- Programmable Output Slope
- Built-in Dual Watchdog



Introduction

The I-7024 is a 14-bit 4-channel analog output module that provides current and voltage outputs. There are options for power-on values and safe values. It features 3000 VDC intra-module isolation. The I-7024R is the same as the I-7024 and provides additional 5-channel digital inputs and 4 KV ESD protection on each terminal. The M-7024/M-7024R support Modbus RTU and DCON protocols and can be configured via software. Their hardware specifications are the same as those of the I-7024/I-7024R.

System Specifications

Model	I-7024 M-7024	I-7024R M-7024R	M-7024L
CPU Module			
Watchdog Timer	Module, Communication (Programmable)		
Isolation			
Intra-module Isolation	3000 VDC		
EMS Protection			
EFT (IEC 61000-4-4)	-	±4 kV for Power Line	
ESD (IEC 61000-4-2)	±2 kV	±4 kV	±8 kV
	Contact for Each Terminal		
RS Immunity (IEC 61000-4-3)	-	5 V/m, 80 MHz ~ 1GHz	
LED Indicators			
Status	1 x Power and Communication		
COM Ports			
Ports	1 x RS-485		
Baud Rate	1200 ~ 115200 bps		
Data Format	(N, 8, 1), (N, 8, 2), (E, 8, 1), (O, 8, 1)		
Protocol	I-7000: DCON		
	M-7000: Modbus RTU, DCON		
Power			
Reverse Polarity Protection	Yes		
Input Range	+10 ~ +30 VDC		
Consumption	2.4 W	3.2 W	2.7 W
Mechanical			
Dimensions (mm)	72 x 123 x 35 (W x L x H)		
Installation	DIN-Rail Mounting		
Environment			
Operating Temperature	-25 ~ +75 °C		
Storage Temperature	-40 ~ +85 °C		
Humidity	10 ~ 95% RH, Non-condensing		

Applications

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

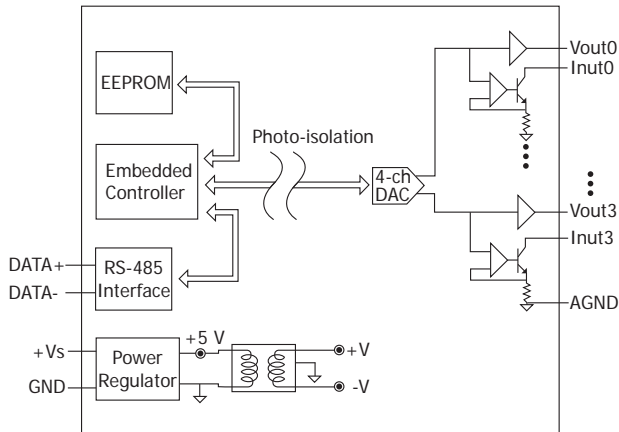
I/O Specifications

Model	I-7024 M-7024	I-7024R M-7024R	M-7024L
Analog Output			
Channels	4		
Type	Voltage, Current		
Range	Voltage	0 ~ 5 V, ±5 V, 0 ~ 10 V, ±10 V,	
	Current	0 ~ 20 mA, 4 ~ 20 mA	
Resolution	14-bit	12-bit	
Accuracy	±0.1% of FSR		
DA Output Response Time	10 ms		
Power-on Value	Programmable		
Safe Value	Programmable		

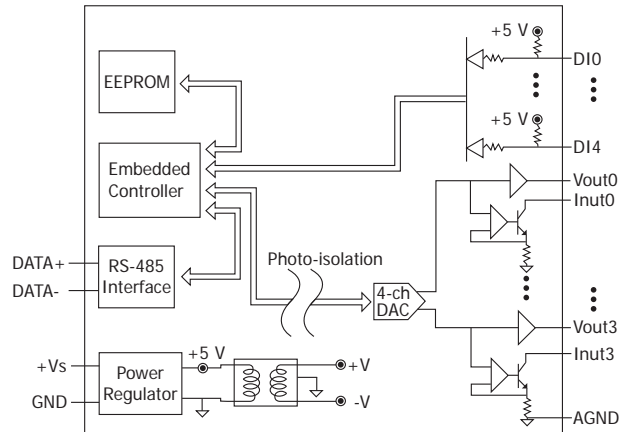
Model	I-7024R M-7024R
Digital Input/Counter	
Channels	5
Type	Dry Contact
Sink/Source (NPN/PNP)	Source
ON Voltage Level	Close to GND
OFF Voltage Level	Open
Max. Counts	65535 (16-bit)
Frequency	50 Hz
Min. Pulse Width	10 ms

Internal I/O Structure

I-7024/M-7024/M-7024L

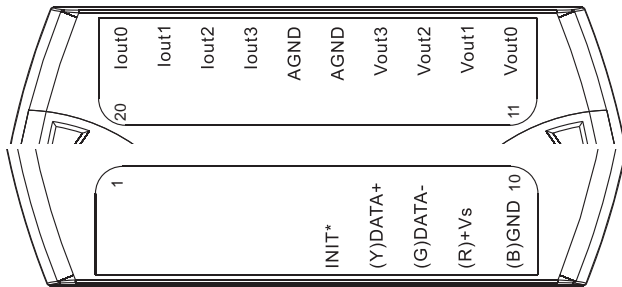


I-7024R/M-7024R

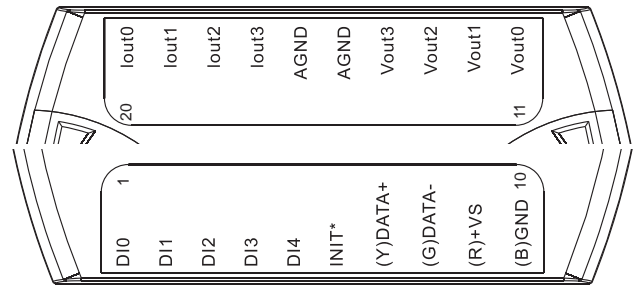


Pin Assignments

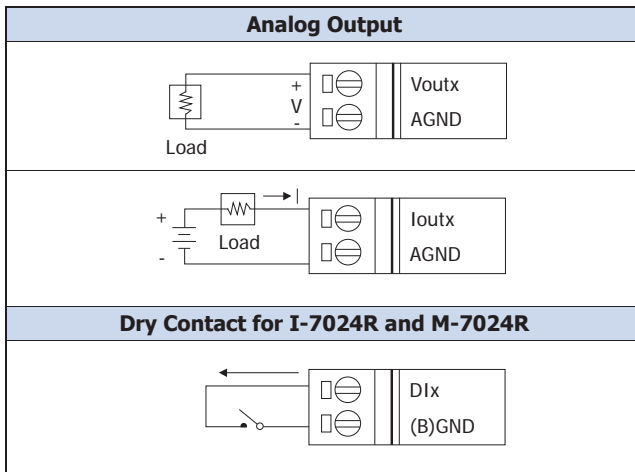
I-7024/M-7024/M-7024L



I-7024R/M-7024R



Wire Connections



Ordering Information

I-7024 CR	4-ch 14-bit AO Module using DCON Protocol (Blue Cover) (RoHS)
I-7024-G CR	4-ch 14-bit AO Module using DCON Protocol (Gray Cover) (RoHS)
I-7024R-G CR	4-ch 14-bit AO Module with 5-ch DI using DCON Protocol (Gray Cover) (RoHS)
M-7024-G CR	4-ch 14-bit AO Module using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7024R-G CR	4-ch 14-bit AO Module with 5-ch DI using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7024L-G CR	4-ch 12-bit AO Module using DCON and Modbus Protocols (Gray Cover) (RoHS)

Accessories

tM-7520U CR	Tiny Isolated RS-232 to RS-485 Converter (RoHS)
tM-7561 CR	Tiny USB to Isolated RS-485 Converter with CA-USB18 Cable (RoHS)
tM-SG4 CR	RS-485 Pull-high/Pull-low and Termination Resistor Module (RoHS)

I-7514U-G CR	Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
SG-770 CR	7/14 channel Surge Protector (RoHS)
SG-3000 Series	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers