



**I-7024(R)**

**M-7024(R)**

4-channel Analog Output Module

**Features**

- 4-channel Analog Output
- Software Selectable Current or Voltage Output
- 14-bit Resolution
- Power-on Value Setting
- Safe Value Setting
- 3000 V<sub>DC</sub> Intra-Module Isolation
- Programmable Output Slope
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C



**Introduction**

I-7024 is an 14-bit 4-channel analog output module that covers from current output to voltage output. There are options for Power-on value and safe value for your consideration. It also features 3000 V<sub>DC</sub> intra-module isolation. M-7024 supports Modbus RTU and DCON protocols which can be configured via software and all hardware specifications are the same as I-7024.

The I-7024R is an RS-485 interface module that provides 4 analog output channels and 5 digital input channels. Its programmable analog outputs are 14-bit at 0 ~ 5 V, +/-5 V, 0 ~ 10 V, +/-10 V, 0 ~ 20 mA and 4 ~ 20 mA, and each terminal provides 4 kV ESD protection.

**Applications**

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

**System Specifications**

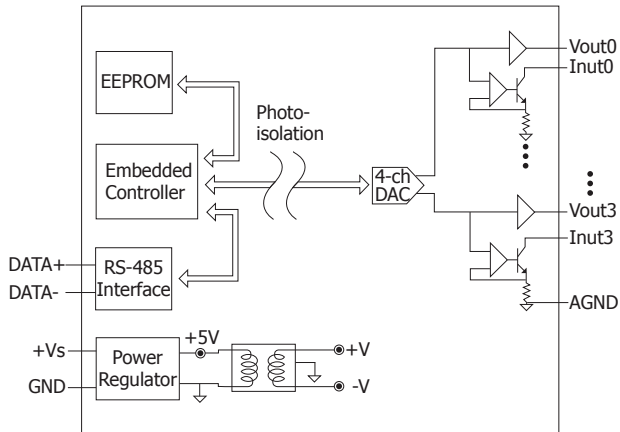
Models	I-7024	M-7024	I-7024R	M-7024R
<b>Communication</b>				
Interface	RS-485			
Format	(N, 8, 1) (N, 8, 2) (E, 8, 1) (O, 8, 1)			
Baud Rate	1200 ~ 115200 bps			
Protocol	DCON	Modbus RTU, DCON	DCON	Modbus RTU, DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)			
<b>LED Indicator/Display</b>				
System LED Indicator	Yes, 1 LED as Power/Communication Indicator			
I/O LED Indicator	-			
7-Segment LED Display	-			
<b>Isolation</b>				
Intra-Module Isolation, Field-to-Logic	3000 V <sub>DC</sub>			
<b>EMS Protection</b>				
ESD (IEC 61000-4-2)	+/-2 kV		+/-4 kV	
EFT (IEC 61000-4-4)	-		+/-4 kV	
RS (IEC 61000-4-3)	-		5 V/m, 80 MHz ~ 1GHz	
<b>Power</b>				
Reverse Polarity Protection	Yes			
Input Range	10 ~ 30 V <sub>DC</sub>			
Consumption	2.4 W		3.2 W	
<b>Mechanical</b>				
Dimensions (W x L x H)	72 mm x 123 mm x 35 mm			
Installation	DIN-Rail or Wall Mounting			
<b>Environment</b>				
Operating Temperature	-25 ~ +75°C			
Storage Temperature	-40 ~ +85°C			
Humidity	10 ~ 95% RH, Non-condensing			

**I/O Specifications**

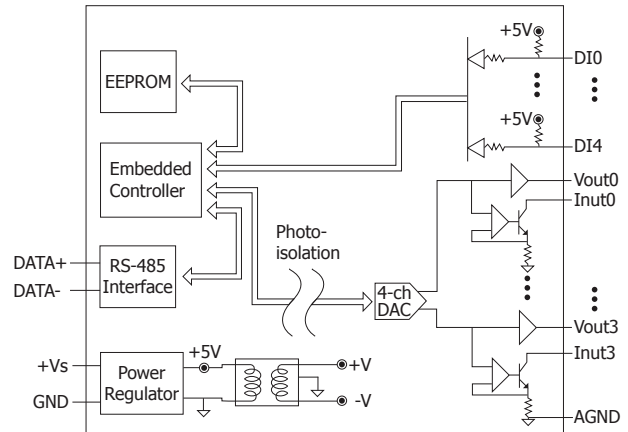
Models	I-7024	M-7024	I-7024R	M-7024R
<b>Analog Output</b>				
Channels	4			
Wiring	Bipolar/Unipolar			
Range	0 ~ 5 V, +/- 5 V, 0 ~ 10 V, +/- 10 V, 0 ~ 20 mA, 4 ~ 20 mA			
Resolution	14-bit			
Accuracy	0.1%			
DA Output Response Time	10 ms			
Open Wire Detection (for current only)	-			
Channel to Channel Isolation	-			
Power-on Value	Yes			
Safe Value	Yes			
<b>Digital Input</b>				
Channels	-		5	
Input Type	-		Dry Contact (Source)	
Contact Level	On Voltage Level	-		Close to GND
	Off Voltage Level	-		Open
Counters	Max. Count	-		65535 (16-bit)
	Max. Input Frequency	-		50 Hz
	Min. Pulse Width	-		10 ms

### Internal I/O Structure

I-7024/M-7024

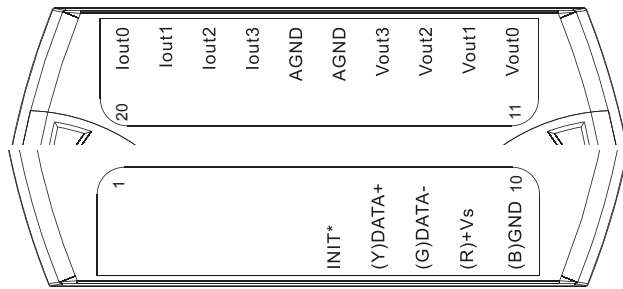


I-7024R/M-7024R

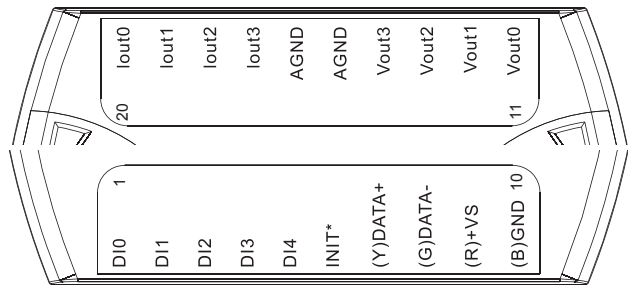


### Pin Assignments

I-7024/M-7024

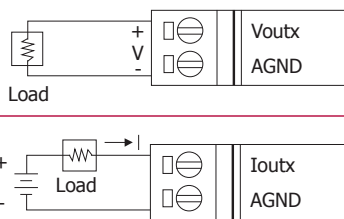


I-7024R/M-7024R

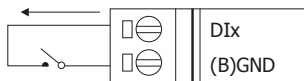


### Wire Connections

#### Analog Output Wire Connection



#### Dry Contact Wire Connection for I-7024R and M-7024R



### Ordering Information

<b>I-7024 CR</b>	4-channel Analog Output Module with DCON Protocol (Blue Cover) (RoHS)
<b>I-7024-G CR</b>	4-channel Analog Output Module with DCON Protocol (Gray Cover) (RoHS)
<b>I-7024R-G CR</b>	4-channel Analog Output and 5-channel DI Module with DCON Protocol(Gray Cover) (RoHS)
<b>M-7024-G CR</b>	4-channel Analog Output Module with DCON and Modbus Protocol (Gray Cover) (RoHS)
<b>M-7024R-G CR</b>	4-channel Analog Output and 5-channel DI Module with DCON and Modbus Protocol (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 Pull-high/Pull-low 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 Inputs