



M-7028 **M-7028D**

8-ch 12-bit AO Module

Features

- 8 Analog Outputs
- Source-type Current Output
- 12-bit Analog Output
- Individual Channel Configuration
- Open Wire Detection for Current Output
- RF Immunity
- Configurable Power-on Value and Safe Value Settings

Introduction

The M-7028 is a 12-bit, 8-channel analog output module. It provides a programmable output range on all analog output channels (0 ~ 5 V, +/-5 V, 0 ~ 10 V, +/-10 V, +4 ~ +20 mA or 0 ~ +20 mA). Each analog output channel can be configured for an individual range and the module also features per-channel open wire detection for the +4 ~ +20 mA output, together with 8 kV ESD Protection as well as 3000 VDC intra-module isolation. Options for configuring power-on and safe values are also included.

Applications

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

System Specifications

Model		M-7028	M-7028D
CPU Module			
Watchdog Timer		Module, Communication (Programmable)	
Display			
Type		-	I/O LED Indicator
Isolation			
Intra-module Isolation		3000 VDC	
EMS Protection			
EFT (IEC 61000-4-4)		±4 kV for Power Line	
ESD (IEC 61000-4-2)		±8 kV Contact for Each Terminal	
RS Immunity (IEC 61000-4-3)		3 V/m, 80 MHz ~ 1 GHz	
LED Indicators			
Status	7028/28D	1 x Power and Communication	
	7028D	8 x Analog Output	
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		Modbus RTU, DCON	
Power			
Reverse Polarity Protection		Yes	
Input Range		+10 ~ +30 VDC	
Consumption		4.3 W	4.8 W

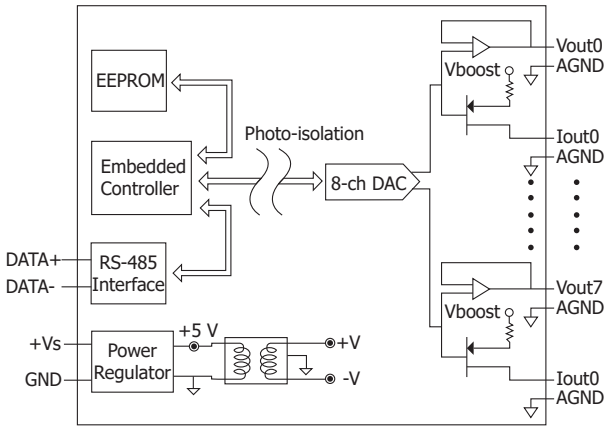
I/O Specifications

Model		M-7028	M-7028D
Analog Output			
Channels		8	
Type		Voltage, Current	
Current		0 ~+5 VDC, ±5 VDC 0 ~ +10 VDC, ±10 VDC 0 ~ +20 mA, +4 ~ +20 mA	
Resolution		12-bit	
Accuracy		±0.1% of FSR	
DA Output Response Time		10 ms per channel	
Programmable Output Slope	Voltage	0.0625 ~ 512 V/Second	
	Current	0.125 ~ 1024 mA/Second	
Current Output Wiring		Source	
Open Wire Detection		For 4 ~ 20 mA Only	
Voltage Output Capability		10 V @ 10 mA	
Current Load Resistance		500 Ω	
Power-on Value		Programmable	
Safe Value		Programmable	

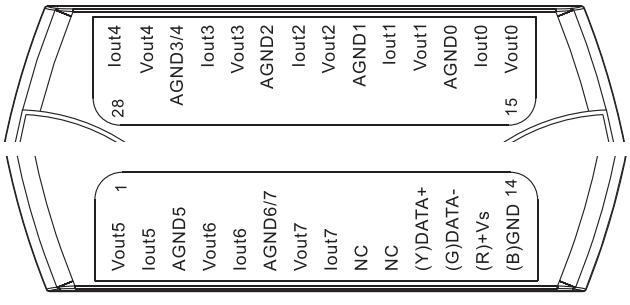
Mechanical	
Dimensions (mm)	72 x 123 x 35 (W x L x H)
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95% RH, Non-condensing

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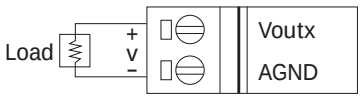
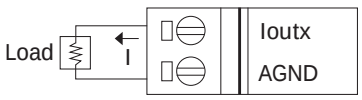
Internal I/O Structure



Pin Assignments



Wire Connections

Voltage Output

Current Output


Ordering Information

M-7028-G CR	8-ch 12-bit AO Module using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7028D-G CR	8-ch 12-bit AO Module with LED Display, 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 CR 	Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
SG-770 CR 	7 or 14-channel Surge Protector (RoHS)

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