



M-7068(D)

M-7069(D)

8-ch Relay (4 x Form A and 4 x Form C) Module

Features

- M-7068(D)
 - 8-ch Signal Relay Module
- M-7069(D)
 - 8-ch Power Relay Module
- 4 Form A and 4 Form C Relay Outputs
- Configurable Power-on Value and Safe Value Settings
- Built-in Dual Watchdog



Introduction

The M-7068 provides 4 Form A signal relay output channels and 4 Form C signal relay output channels, while the M-7069 provides 4 Form A power relay output channels and 4 Form C power relay output channels. Both include 8 LED indicators that can be used to monitor the relay output status, and options are provided that allow power-on and safe digital output values to be configured. 4 kV ESD, 4 kV EFT and 3 kV surge protection are also provided to enhance noise protection capabilities in industrial environments. The M-7068 is the ideal solution for small signal switching, while the M-7069 is the ideal solution for high power applications.

System Specifications

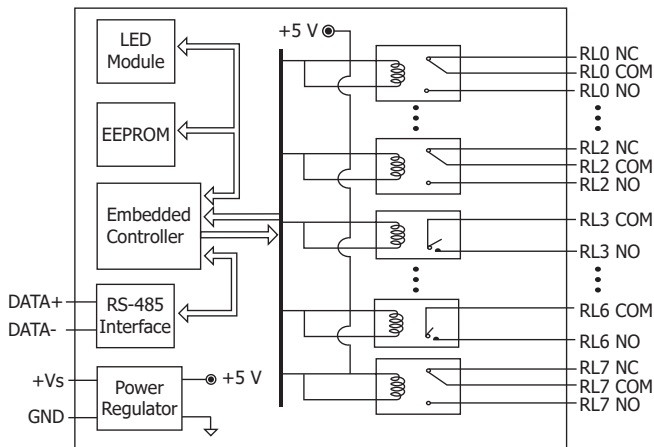
Model	M-7068	M-7068D	M-7069	M-7069D
CPU Module				
Watchdog Timer	Module, Communication (Programmable)			
Display				
Type	7068D/69D: I/O LED Indicator			
Isolation				
Intra-module Isolation	2000 VDC		3750 VDC	
EMS Protection				
EFT (IEC 61000-4-4)	±4 kV for 8 Relay and Power Line ±2 kV for RS-485 Port Line			
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±8 kV Air for Random Point			
Surge (IEC 61000-4-5)	±3 kV for Power Line			
LED Indicators				
Status	1 x Power and Communication 7068D/69D: 8 x Relay 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	1.6 W (Max.)	2.0 W (Max.)	2.1 W (Max.)	2.5 W (Max.)

I/O Specifications

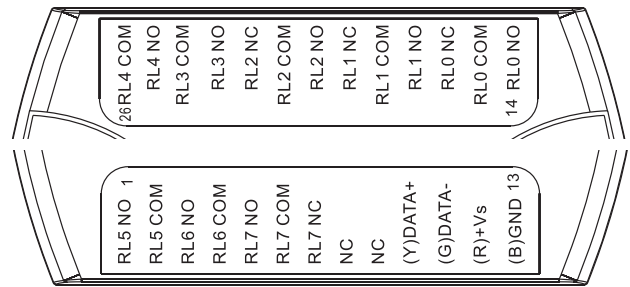
Model	M-7068(D)	M-7069(D)
Relay Output		
Channels	8 (4 x Form A, 4 x Form C)	
Type	Signal Relay	Power Relay
Contact Material	Silver Nickel, Gold-covered	Silver Cadmium Alloy
Contact Rating	Form A / Form C: 2 A @ 30 VDC 0.24 A @ 220 VDC 0.25 A @ 250 VAC	Form A: 6 A @ 35 VDC 6 A @ 240 VAC Form C: 5 A @ 30 VDC 5 A @ 250 VAC
Operate Time	3 ms (typical)	5 ms (typical)
Release Time	4 ms (typical)	1 ms (typical)
Electrical Endurance	2 x 10 ⁵ ops.	1 x 10 ⁵ ops.
Mechanical Endurance	1 x 10 ⁸ ops.	Form A: 30 x 10 ⁶ ops. Form C: 15 x 10 ⁶ ops.
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

Internal I/O Structure



Pin Assignments



Applications

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

Wire Connections

Relay Output	ON State Readback as 1	OFF State Readback as 0
Form A Relay in RL3 ~ RL6		
Form C Relay in RL0 ~ RL2 and RL7		

Ordering Information

M-7068-G CR	8-ch Signal Relay (4x Form A and 4x Form C) Module using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7068D-G CR	8-ch Signal Relay (4x Form A and 4x Form C) Module with LED Display, using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7069-G CR	8-ch Power Relay (4x Form A and 4x Form C) Module using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7069D-G CR	8-ch Power Relay (4x Form A and 4x Form C) 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)
I-7514U CR	Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
SG-3000 Series	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers