



## tM-C8

8-channel Isolated Digital Output Module

### Introduction

The tM-C8 provides 8 channels for digital output, each of which features photocouple isolation. The tM-C8 supports sink-type output with short circuit protection and there are options for configuring power-on and safe digital output values. 4 kV ESD protection and 3750 Vdc intra-module isolation are also provided.

### Applications

- All Types of On/Off Control
- Industrial Automation
- Industrial Machinery
- Building Automation
- Food and Beverage Systems
- Semiconductor Fabrication
- Control Systems

### System Specifications

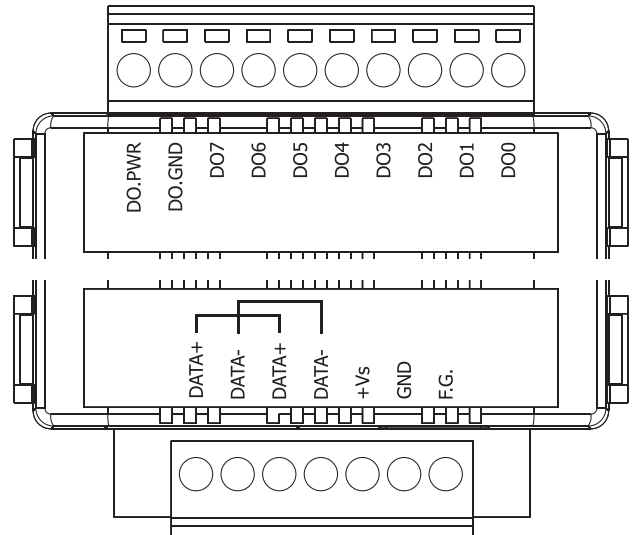
| Communication                          |   |
|--|---|
| Interface                              | RS-485  |
| Format                                 | (N, 8, 1), (N, 8, 2), (O, 8, 1), (E, 8, 1)                    |
| Baud Rate                              | 1200 ~ 115200 bps   |
| Protocol                               | DCON, Modbus/RTU, Modbus/ASCII                                |
| Dual Watchdog                          | Yes, Module (2.3 seconds), Communication (Programmable)       |
| LED Indicators                         |   |
| Power                                  | 1 LED as Power Indicator                                      |
| Isolation                              |   |
| Intra-module Isolation, Field-to-Logic | 3750 Vdc  |
| EMS Protection                         |   |
| ESD (IEC 61000-4-2)                    | ±4 kV Contact for Each Terminal<br>±8 kV Air for Random Point |
| EFT (IEC 61000-4-4)                    | ±4 kV for Power   |
| Power Requirements                     |   |
| Reverse Polarity Protection            | Yes   |
| Powered from Terminal Block            | Yes, 10 ~ 30 Vdc  |
| Consumption                            | 0.8 W Max.  |
| Mechanical                             |   |
| Dimensions (W x L x H)                 | 52 mm x 98 mm x 27 mm   |
| Installation                           | DIN-Rail Mounting   |
| Environment                            |   |
| Operating Temperature                  | -25 ~ +75°C   |
| Storage Temperature                    | -30 ~ +75°C   |
| Humidity                               | 10 ~ 95% RH, Non-condensing                                   |

### Features

- Sink-type Digital Outputs
- Photocouple Isolation
- Dual Watchdog
- Configurable Power-on Value Settings
- Configurable Safe Value Settings
- Cost-effective
- Wide Operating Temperature Range: -25 ~ +75°C



### Pin Assignments



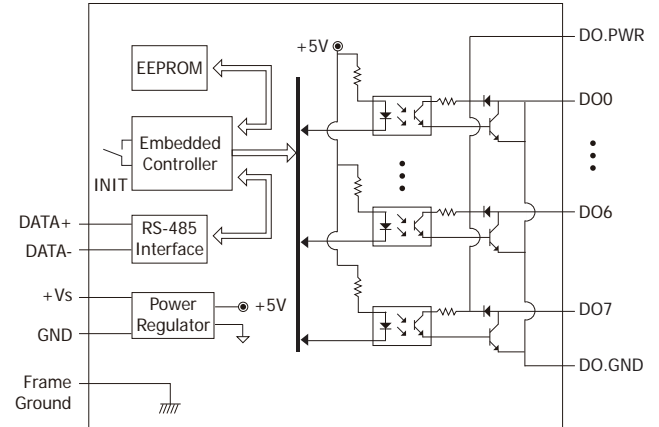
### I/O Specifications

| Digital Output           |                                |
|--------------------------|--------------------------------|
| Output Channels          | 8                              |
| Type                     | Isolated Open Collector (Sink) |
| Max Load Current         | 700 mA/channel                 |
| Load Voltage             | 3.5 Vdc ~ 50 Vdc               |
| Overvoltage Protection   | 60 Vdc                         |
| Overload Protection      | 1.4 A                          |
| Short Circuit Protection | Yes                            |
| Power-on Value           | Yes, Programmable              |
| Safe Value               | Yes, Programmable              |

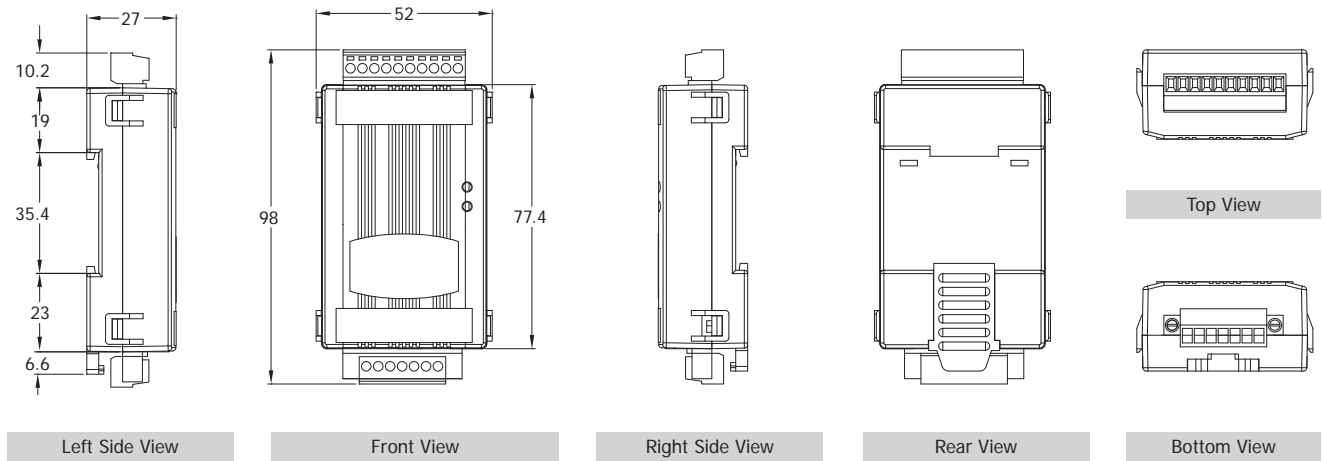
### Wire Connections

| Output Type     | ON State<br>Readback as 1 | OFF State<br>Readback as 0 |
|-----------------|---------------------------|----------------------------|
|                 | Relay ON                  | Relay OFF                  |
| Drive Relay     |                           |                            |
| Resistance Load |                           |                            |

### Block Diagram



### Dimensions (Units: mm)



### Ordering Information

|          |  |
|----------|--|
| tM-C8 CR | 8-channel Isolation Digital Output Module (RoHS) |
|----------|--|

### Related Products

|  |              |   |
|--|--------------|---|
|  | tM-7561 CR   | Isolated USB to RS-485 Converter (RoHS)                   |
|  | tM-7520U CR  | Isolated RS-232 to RS-485 Converter (RoHS)                |
|  | tM-7510U CR  | Isolated RS-485 Repeater (RoHS)                           |
|  | MDR-20-24 CR | 24W Single Output Industrial DIN-Rail Power Supply (RoHS) |

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Tiny RS-485 Remote I/O Modules