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Tiny RS-485 Remote I/O Modules



tM-C8

8-channel Isolated Digital Output Module

Digital Output

Features

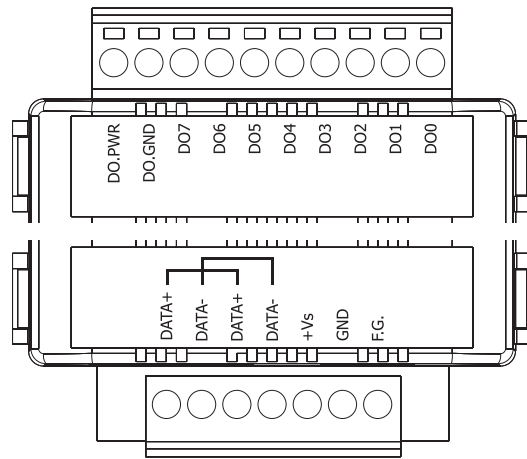
- Sink-type Digital Outputs
- Photocouple Isolation
- Dual Watchdog
- Configurable Power-on Value Settings
- Configurable Safe Value Settings
- Cost-effective
- Wide Operating Temperature Range: -25 ~ +75°C



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 V_{bc} intra-module isolation are also provided.

Pin Assignments



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tM Series

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 V _{bc}
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±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 V _{bc}
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

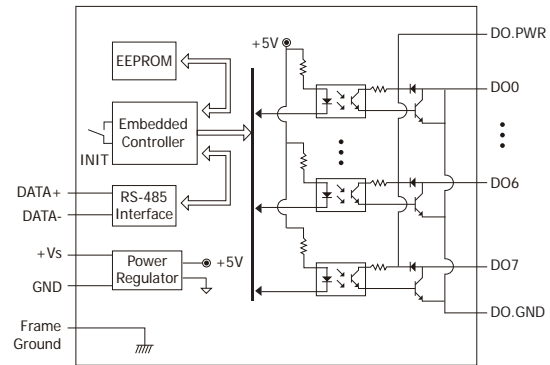
I/O Specifications

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

Wire Connections

Output Type	ON State Readback as 1	OFF State Readback as 0
	Relay ON	Relay OFF
Drive Relay		
Resistance Load		

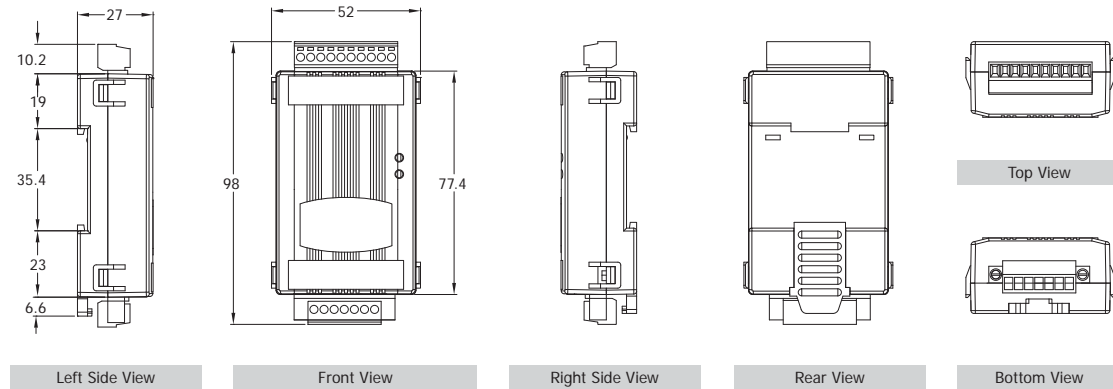
Block Diagram



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Tiny RS-485 Remote I/O Modules

Dimensions (Units: mm)



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tM Series

Ordering Information

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

tM-C8