



tM-P8 tM-PDW8

8-channel Isolation Digital Input Module

Features

- tM-P8
  - Wet Contact: Source- or Sink-type Digital Inputs
- tM-PDW8:
  - Dry Contact: Source-type Digital Inputs
  - Wet Contact: Source- or Sink-type Digital Inputs
- Photocoupler Isolation
- Dry Contact and Wet Contact Selectable via Wire Connections
- All DI Channels Can Be Used As 16-bit Counters
- Dual Watchdog

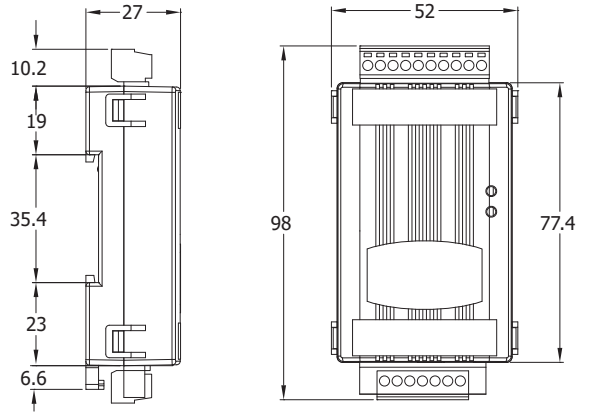
Introduction

The tM-P8 offers 8 channels for digital input, each of which features photocoupler isolation. In addition, the digital input channels can be configured as either sink- or source-type through wiring. All channels can be used as 16-bit counters. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided. The tM-PDW8 offers 8 channels for digital input, catering for both dry and wet contact, with an effective distance for dry contact of up to 500 meters. All channels not only feature photocoupler isolation but can also be used as 16-bit counters. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided.

Applications

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

Dimensions (Units: mm)



Left Side View | Front View

System Specifications

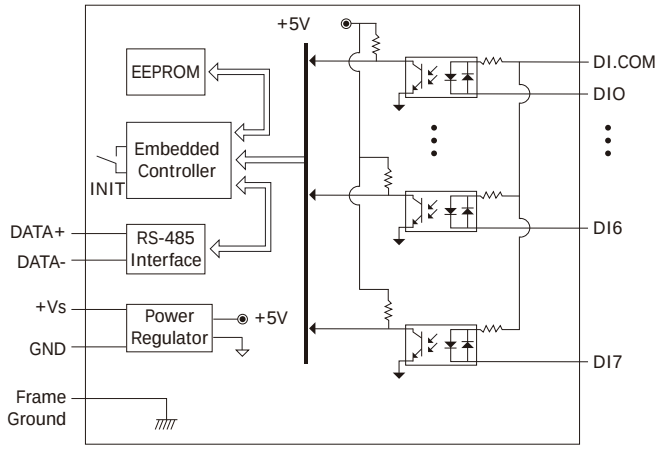
Model	tM-P8	tM-PDW8
CPU Module		
Watchdog Timer	Module, Communication (Programmable)	
Isolation		
Intra-module Isolation	3750 VDC	
EMS Protection		
EFT (IEC 61000-4-4)	±4 kV for Power	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±8 kV Air for Random Point	
LED Indicators		
Status	1 x Power and Communication	
COM Ports		
Ports	1 x RS-485	
Baud Rate	1200 ~ 115200 bps	
Data Format	(N, 8, 1), (N, 8, 2), (O, 8, 1), (E, 8, 1)	
Protocol	DCON, Modbus RTU, Modbus ASCII	
Power		
Reverse Polarity Protection	Yes	
Consumption	0.2 W max.	0.43 W max.
Powered from Terminal Block	10 ~ 30 VDC	
Mechanical		
Dimensions (mm)	52 x 98 x 27 (W x L x H)	
Installation	DIN-Rail Mounting	
Environmental		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +75 °C	
Humidity	10 ~ 95% RH, Non-condensing	

I/O Specifications

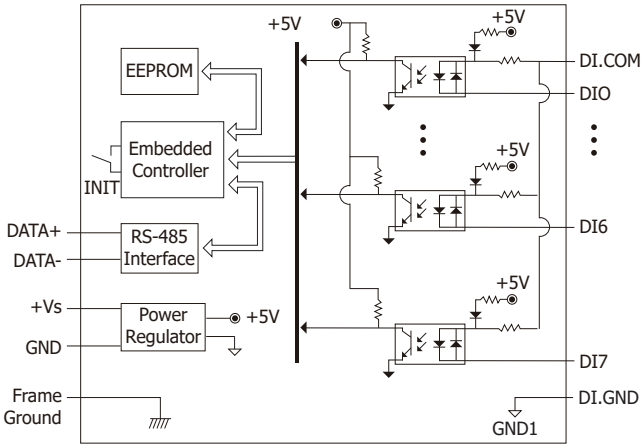
Model		tM-P8	tM-PDW8
Digital Input/Counter			
Channels		8	
Type		Wet Contact	Dry Contact, Wet Contact
Sink/Source (NPN/PNP)	Dry	-	Source
	Wet	Sink/Source	
ON Voltage Level	Dry	-	Close to GND
	Wet	+3.5 ~ +50 VDC	
OFF Voltage Level	Dry	-	Open
	Wet	+1 VDC max.	
Max. Counts		65535 (16-bit)	
Frequency		100 Hz	
Min. Pulse Width		5 ms	
Input Impedance		10 KΩ, 0.5 W	
Overvoltage Protection		±70 VDC	

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Internal I/O Structure

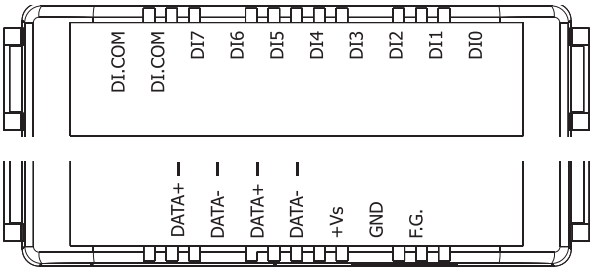


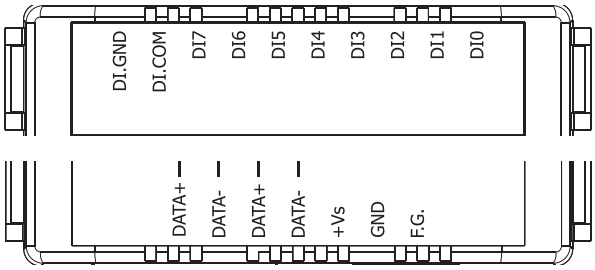
tM-P8



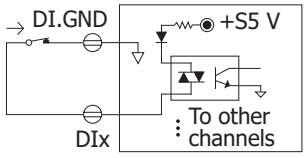
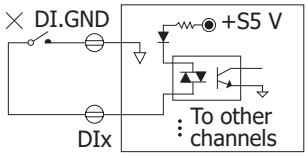
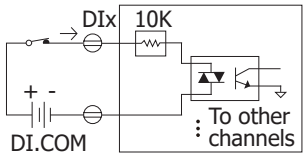
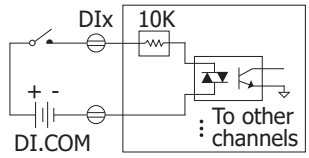
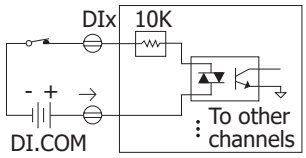
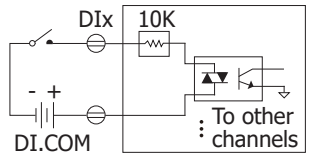
tM-PDW8

Pin Assignments





Wire Connections

Model	tM-PDW8	
Input Type	**ON State Readback as 1**	**OFF State Readback as 0**
Dry Contact	Close to GND	Open
		
Model	**tM-P8 / tM-PDW8**	
Input Type	**ON State Readback as 1**	**OFF State Readback as 0**
Wet Contact (Sink)	+3.5 ~ +50 VDC	OPEN or <1 VDC
		
Wet Contact (Source)	+3.5 ~ +50 VDC	OPEN or <1 VDC
		

Ordering Information

tM-P8 CR	8-channel Isolation DI (Wet) Module (RoHS)
tM-PDW8 CR	8-channel Isolation Digital Input (Dry, Wet) Module (RoHS)

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