



tM-P8

8-channel Isolation Digital Input Module

tM-PDW8

Features

- 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 Channels Can Be Used As 16-bit Counters
- Dual Watchdog
- Cost-effective



Introduction

The tM-P8 offers 8 channels for digital input, each of which features photocoupler isolation. In addition, digital input can be either sink or source-type using wire connections and 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.

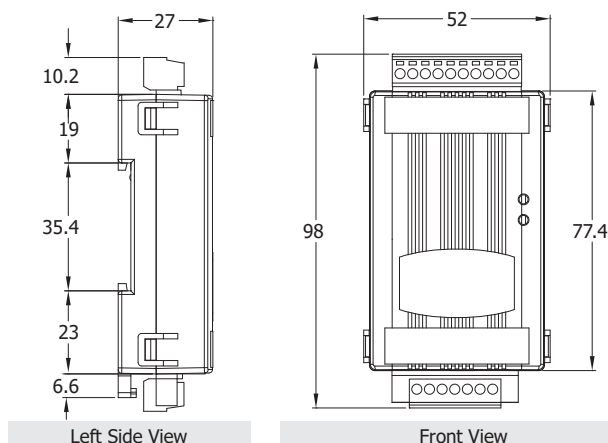
Applications

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

System Specifications

Model	tM-P8	tM-PDW8
CPU Module		
Watchdog Timer	Yes, Module (2.3 seconds), Communication (Programmable)	
Isolation		
Intra-module Isolation	3750 Vdc	
EMS Protection		
EFT (IEC 61000-4-4)	±4 kV for Power	
EFT (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	Yes, 10 ~ 30 Vdc	
Mechanical		
Dimensions (W x L x H)	52 mm x 98 mm x 27 mm	
Installation	DIN-Rail Mounting	
Environmental		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +75 °C	
Humidity	10 ~ 95% RH, Non-condensing	

Dimensions (Units: mm)

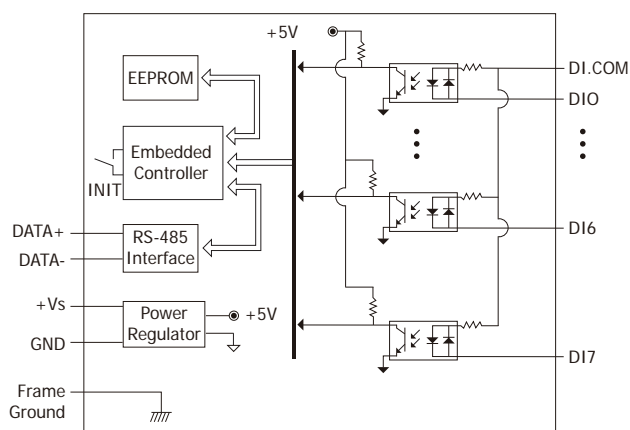


I/O Specifications

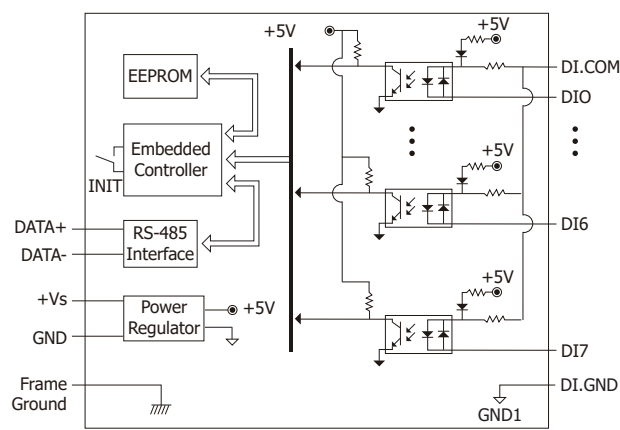
Model	tM-P8	tM-PDW8
Digital Input/Counter		
Channels	8	
Type	Wet Contact, Sink/Source	Wet Contact (Sink, Source) + Dry Contact (Source) Wet Contact, Sink/Source
Wet Contact, ON Voltage Level	+3.5 VDC ~ +50 VDC	
Wet Contact, OFF Voltage Level	+1 VDC Max.	
Dry Contact, ON Voltage Level	-	Close to GND
Dry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

Internal I/O Structure

tM-P8

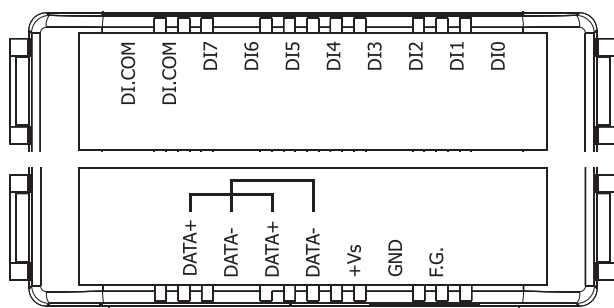


tM-PDW8

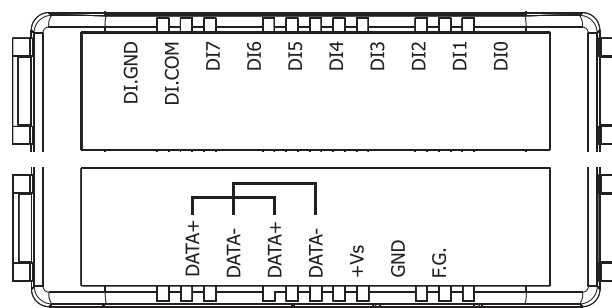


Pin Assignments

tM-P8



tM-PDW8



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)