

CONPROSYS Robust I/O Series  
RS-485 I/O Module 16-ch DI, CNT  
**CPSR-M7051DG**



\* Specifications, color and design of the products are subject to change without notice.

Features

- 16 Digital Inputs
- Dry Contact and Wet Contact Selectable via Wire Connections
- Photocoupler Isolation
- Long Distance Measurement
- All Channels Can be Used as 16-bit Counters
- Built-in Dual Watchdog

The product offers 16 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.

The product has 16 LED indicators that can be used to monitor the status of the digital input channels.

4 kV ESD protection and 3750 VDC intra-module isolation are standard.

- \* The contents in this document are subject to change without notice.
- \* Visit the CONTEC website to check the latest details in the document
- \* The information in the data sheets is as of June, 2025.

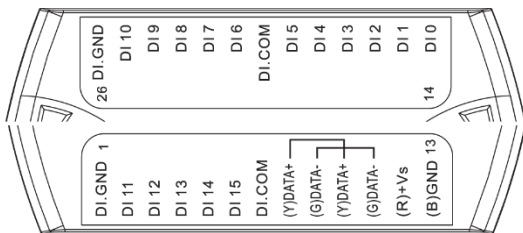
Specifications

System specification	
Item	Description
CPU Module	
Watchdog Timer	Module, Communication (Programmable)
Display	
Type	I/O LED Indicator
Isolation	
Intra-module Isolation	3750 VDC
EMS Protection	
EFT (IEC 61000-4-4)	±4 kV for Power 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 16 x Digital Input
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
Power	
Reverse Polarity Protection	Yes
Input Range	+10 - +30 VDC
Consumption	1.1 W
Mechanical	
Dimensions (mm)	72(W) x 122(L) x 34 (H)
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 - +75 °C
Storage Temperature	-40 - +85 °C
Humidity	10 - 95% RH, Non-condensing
Standard	VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive), UKCA

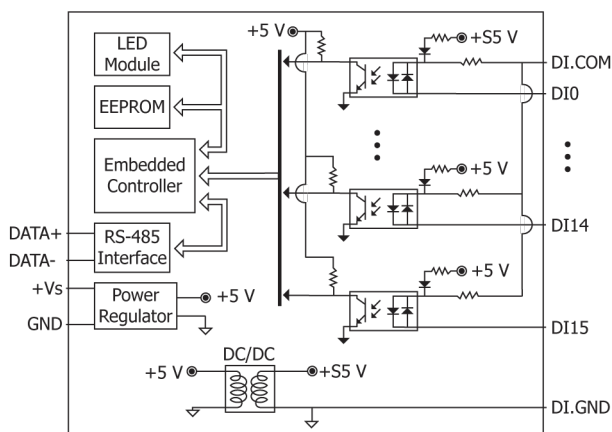
## I/O specification

Item	Description
<b>Digital Input/Counter</b>	
Channels	16
Type	Dry Contact, Wet Contact
Sink/Source (NPN/PNP)	Sink/Source
ON Voltage Level	Dry: Close to GND Wet: +10 ~ +50 VDC
OFF Voltage Level	Dry: Open Wet: +4 VDC Max.
Max. Counts	65535 (16-bit)
Frequency	100 Hz
Min. Pulse Width	5 ms
Effective Distance	500 m Max.
Input Impedance	10 k $\Omega$
Overvoltage Protection	+70 VDC

## Pin Assignments



## Internal I/O Structure



## Wire Connections

Input Type	ON State Readback as 1
Dry Contact	Close to GND
	OFF State Readback as 0
Open	Open

Input Type	Readback as 1
Wet Contact (Sink)	+10 to +50 VDC
	Readback as 0
+4 VDC Max.	+4 VDC Max.

Input Type	ON State Readback as 1
Wet Contact (Source)	+10 ~ +50 VDC
	OFF State Readback as 0
+4 VDC Max.	+4 VDC Max.