

CONPROSYS Series
Digital Input/Output, CAN Module ,BATT
CPS-MC341-DS2-911



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

Hardware Features

Compact design

Compact design, 188.0(W) × 78.0(D) × 30.5(H), features flexibility in installation.

Adaptable to a temperature range between -20 and +60°C

The product is capable of operating in the temperature between -20 and + 60°C. It can be installed in the various environments.

Ethernet Hub Function within

Use the product as Ethernet Hub so that you can connect devices in the daisy-chain.

A powerful running platform without fan

The product contains the ARM®Cortex®-A8 processor (600MHz) and the DDR3 512MB system memory.

Decrease malfunctions or damages by bus isolation and surge protection. (the RS-422A/485, digital input/output, CAN)

Electrical isolation between the RS-422A/485 and the CPU, between the digital input/output and CPU, as well as between CAN and CPU can block electrical noise flow. Moreover, the surge protection elements are used for signal line and on top of that, the RS-422A/485 is protected with the communication IC that can withstand ±70 V input voltage, which reduces malfunctions or damages by surge.

Capable of adapting a wide-range power (12- 24VDC)

The product is capable of dealing with a wide range of power in the differing environments. Power connector also has a FG terminal.

Easy installation with screws or on DIN rail

This product can be installed on the wall with screws or on DIN rail with simple mounting.

Installation with two pieces of terminal support

The terminal connector can be removed without a screwdriver. Even when a malfunction occurs, this product can be replaced in a short length of time.

Equipped with LED for an operation check

The product has LED for an operation check, which helps you visually confirm the communication status of each interface.

Choice of a battery with a longer life.

With a choice of a long-life battery, the Contec is creating longer lasting products.

This product is a M2M controller with isolated CAN, isolated RS-422A/485, isolated digital input/output, and LAN interface. It is equipped with the ARM®Cortex®-A8 processor (600MHz) and the 512MB DDR3-SDRAM system memory. On-board NOR-FLASH is utilized for a booting device.

You can perform all processes on a web browser from the development to the operation. The functions such as Web monitoring of I/O information, alarm processing by I/O information, task divergence enable you to create a Cloud System at low cost and in a short time.

- * 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 October, 2022.

Software Features

Measurement and Upload

The product measures data with an external sensor and uploads them to the Cloud server.

Web Monitoring

The product contains a Web server. Even with the PC located remotely, I/O information can be monitored and updated through a Web browser. On the monitoring screen, the standard GUI parts (graphic, slider, button, etc.) can be freely arranged. All operations including monitoring layout, making relations with I/O information, can be achieved through a Web browser.

Web Task Script

By combining icons such as arithmetic operations, conditional branching, data outputting, you can set up the executions or its processes like drawing them in the flowchart. All operations can be completed through a Web browser.

Message Communication Function

With the RS-422A/RS-485 or the Ethernet device (TCP/UDP), up to 10 links can be set to send or receive messages. Message communication can be accomplished from Web task script.

Packing List

- Product [CPS-MC341-DS2-911] ...1
- Product Guide ... 1
- Warranty Certificate ...1
- Serial Number Label ...1
- 3-pin Connector (Power) ...1
- 5-pin Connector (RS-422A/485) ...1
- 10-pin Connector (Digital) ...2

List of Option

DIN rail mounting power supply

CPS-PWD-15AW12-01: DIN rail mounting power supply 15[w]
 (Input: 100 - 240VAC, output 12VDC 1.3 A)

SD card

SD-4GB-A: SD card 4GB

Magnet

CPS-MAG01-4: Magnets for installation (Four Piece Set)

* Visit the Contec website for the latest optional products.

Specifications

Item		CPS-MC341-DS2-911
CPU		ARM Cortex-A8 600MHz
Memory		On Board 512MB DDR3 SDRAM
ROM		On-Board 32MB NOR Flash for OS
LAN	Transmission standard	10BASE-T/100BASE-TX
	The number of channels	2
	Connector	RJ-45 Connector
	LED	Speed (Yellow), Link/Act (Green)
RS-422A/485	Transmission scheme	Asynchronous serial transmission (Full Duplex/Half Duplex)
	The number of channels	1
	Isolation/Resistance	Bus Isolation/500VDC
	Baud Rate	300bps - 115.2kbps
	Data length	5, 6, 7, 8 bit 1, 1.5, 2 stopbit
	Parity check	Even, Odd, Non-parity
	Connector	2-piece 3.5mm pitch 5-pin terminal (TX+, TX-, RX+, RX-, SG)
	Applicable wire	AWG28 - 16
	LED	Transmission (Yellow), Reception (Yellow)
	Switch	DIP Switch (Full Duplex /Half Duplex, Terminator (ON/OFF))
	Surge protection element each signal - SG	Interactive TVS diode Stand off voltage : ±13V, Peak pulse power : 400W(1msec)
	Surge protection element SG - FG	Gas discharge tube arrester Discharge voltage : ±300V, impulse current tolerance : 2000A(8/20μsec, 10 times)
	SD card slot	Standard
Connector		SD memory card slot
LED		Read/Write (Yellow)
CAN	CAN specification	CAN2.0A/B
	Speed	10bps - 1Mbps
	Isolation/Resistance	Isolation
	The number of channels	1
	Connector	9-pin D-SUB connector (Male)
Digital input	LED	CAN A (Yellow)
	Input type	Opto-coupler isolation input (Compatible with current sink output) (negative logic) *1
	Isolation/Resistance	Opto-coupler isolation /1000V
	Open circuit impedance	10kΩ and more
	Short circuit impedance	500Ω or less
	Input resistance	3.3kΩ
	Response time	Within 200μsec
	Interrupt	8 interrupt input signals are arranged into a single output of interrupt signal. An interrupt is generated at the falling edge (HIGH-to-LOW transition) or rising edge (LOW-to-HIGH transition). (setting can be done by software)
	The number of channels	8
	LED	DI0 - DI7 (Yellow)
	Connector	2-piece 3.5mm pitch 10-pin terminal (MCOM, DI0, DI1, DI2, DI3 DI4, DI5, DI6, DI7, N.C)
	Applicable wire	AWG28 - 16
	Digital output	Output type
Isolation/Resistance		Opto-coupler Isolation/1000V
Maximum Output Voltage / Current		24V/100mA
Residual Voltage with Output ON		0.5V or less (Output current ≤ 50mA), 1.0V or less (Output current ≤ 100mA)
Response time		Within 200μs
The number of channels		8
LED		DO0-DO7 (Yellow)
LED	Connector	2 pieces 3.5mm pitch 3-pin terminal (MCOM, DO0, DO1, DO2, DO3 DO4, DO5, DO6, DO7, N.C)
	Applicable wire	AWG28 - 16
LED	Power (Green)/Status 1 (Green)/Status 2 (Red)	
Switch	Reset SW, Shutdown SW, Switching for Full Duplex/Half Duplex	
RTC	RTC built-in (battery equipped)	
Power supply *2	Rated input voltage	12 - 24VDC
	Input voltage range	10.8 - 30VDC
	Power consumption	12V 0.6A (Max), 24V 0.3A (Max)

Item		CPS-MC341-DS2-911
Connector	Connector	2-piece 3.5mm pitch 3-pin terminal (V+, V-, FG)
	Applicable wire	AWG24 - 16
	Surge protection element V+ - V-, V- - FG	Interactive TVS diode Stand off voltage : ±30V, Peak pulse power : 400W(1msec)
Physical Dimensions (mm)		188.0(W)×78.0(D)×30.5(H) (No projection included)
Weight		300g
Installation method		Quick mounting on the 35mm DIN rail, Mounting on the wall using the screws *3
OS		Linux kernel 3.2

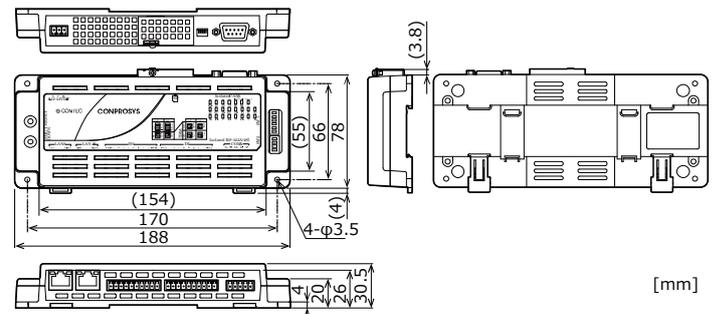
- *1 Data 0 corresponds to High level and Data 1 corresponds to Low level.
- *2 Use power cable within 3meters.
- *3 Commercial screws are required (fit into φ3.5 hole).

Installation Environment Requirements

Item		Description
Operating ambient temperature		-20 - +60°C
Operating ambient humidity		10 - 90%RH (No condensation)
Non-operating ambient temperature		-20 - +60°C
Non-operating ambient humidity		10 - 90%RH (No condensation)
Floating dust particles		Not to be excessive
Corrosive gases		None
Line-noise resistance	Line noise	AC Line/±2kV *4 Signal Line /±1kV(IEC61000-4-4 Level 3, EN61000-4-4 Level 3)
	Static electricity resistance	Touch /±4kV(IEC61000-4-2 Level 2, EN61000-4-2 Level 2) Air /±8kV(IEC61000-4-2 Level 3, EN61000-4-2 Level 3)
Vibration resistance	Sweep resistance	10 - 57Hz *5 / semi-amplitude vibration 0.15mm, 57 - 150Hz/2.0G 40minutes each in X, Y, and Z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant)
	Shock resistance	15G half-sine shock for 11ms in X, Y, and Z directions (JIS C 60068-2-27-compliant, IEC 60068-2-27-compliant)
Grounding		Class D grounding (previous class 3 grounding), SG-FG/ non-conduction
Standard		VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive), UKCA, UL/c-UL

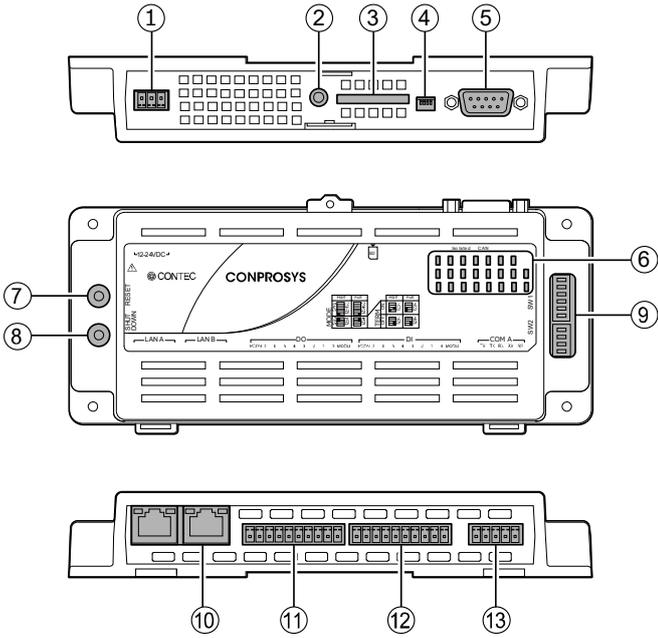
- *4 When you use the CPS-PWD-15AW12-01 (optional product)
- *5 When you use an optional power product: 10-55Hz (See the manual of optional power product for details)

Physical Dimensions



[mm]

Component Name



No.	Name	Function
1	Power Connector	This is a connector for power. Use the 3-pin connector included in the package.
2	Debug Connector	Do not use this.
3	SD Card Slot	This is a slot for inserting SD card to store data.
4	DIP Switch for CAN	This is a DIP switch for CAN setting.
5	CAN Port	This is a CAN port (Male).
6	LED Indicator	This indicates status of the product.
7	Reset Switch	This resets the product.
8	Shut-Down Switch	This shuts down the product.
9	DIP Switch	This is used for system setup and RS-422A/485 setup.
10	LAN Port	This is a connector for LAN.
11	Digital Output	This is a connector for digital output. (Use the 10-pin connector included in the package)
12	Digital Input	This is a connector for digital input. (Use the 10-pin connector included in the package)
13	RS-422A/485 Connector	This is a connector for RS-422A/485 communication. (Use the 5-pin connector included in the package)