

CONPROSYS Series

CPS-MC341-ADSC1-111



The product is an IoT/M2M controller with isolated RS-422/485, isolated digital/counter input, isolated digital output, analog input isolated between the channel, RS232C and Ethernet Hub. It is equipped with ARM®Cortex®-A8 processor (600MHz) and onboard 512MB DDR3-SDRAM. Boot device adopts onboard NOR-FLASH. The product realize all from development to utilize by operation on web browser. The product is equipped with function such as Web monitoring with I/O information, alarm processing by I/O information and task divergence and construct cloud system at low cost and in a short time.

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

Features

Measurement, Collection

The product measures data by I/O sensor and sends it to a cloud server.

Web Monitoring

The product has Web server (Java applet). It is able to monitor and renew by PC which is in a faraway place. Monitoring screen can be laid out freely with standard GUI parts (graphic, slider, button, etc.). All operations completed only association with monitoring layout, I/O information, etc. on Web browser.

Web Task Script

A combination of Icons such as computing, conditional branch and data output, you can set the execution process and the process in the image that you write in the flowchart. All operations are completed only by the operation of the Web browser.

Message Communication Function

Using RS232C, RS-422/RS-485 and Ethernet device (TCP/UDP), the product can do message communication setting 10 links maximum. The product can realize to send and receive message in Web task script.

Compact Design

Compact design of 188.0(W) × 78.0(D) × 30.5(H) does not require special installation location.

Supported Operating Temperature -20 to +60°C

Because the product supports -20 to +60°C operating temperature environment, it can be used in a variety of environments.

Ethernet Hub Function

It enables daisy chain connection to use the product as Ethernet Hub.

A powerful platform in fan less motion

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

Decrease in risk of malfunction and damaged by bus isolation and surge protection. (RS-422A/485, digital/counter input)

Because between RS-422A/485 and CPU, between digital/counter and CPU are isolated electrically, the product can prevent an electrical noise. In addition, the signal line has adopted a surge protection element. Because it has been protected from surge by the adoption of communication IC having an input withstand voltage ±70V in RS-422A / 485, risk of malfunction and damage by surges can reduce.

Decrease in risk of malfunction and damaged by bus isolation, inter channel isolation and surge protection. (Analog input)

Because between Analog inputs and channel and between Analog inputs and CPU has been electrically isolated, it is possible to connect an input signal with electric potential difference. In addition, since the signal line has been a surge protection elements is adopted, risk of malfunction and damage by surges can reduce.

A wide range of power supplies (12- 24VDC) supported

As the product supports a wide range of power (10.8 - 31.2VDC), it can be used in a variety of power environments. Power connector is equipped with FG terminal.

Adopted two pieces terminal and DIN rail installation

It is possible to remove terminal connector without screwdriver in a short time even if this product is failure. Because of DIN rail Installation, it is easy to exchange the product.

Equipped LED for operation check

The product has LED for operation check so that you can confirm communication Status of each interface visually.

Electrolytic capacitor and primary battery unused

Because the product is not used an electrolytic capacitor and a primary battery which are short-life components, it is a long life.

Specification

Function specification

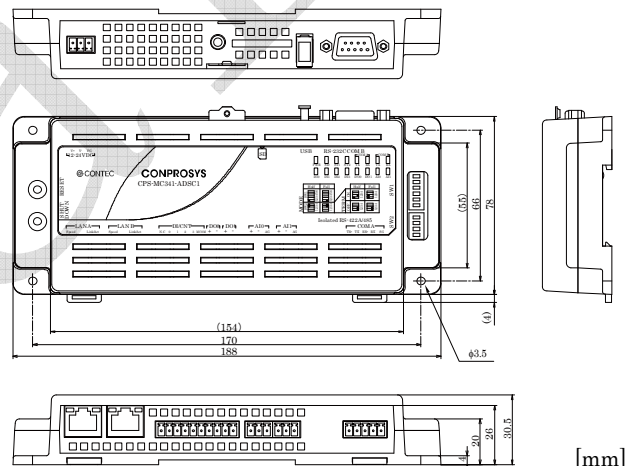
Item	CPS-MC341-ADSC1-111	
CPU	ARM® Cortex®-A8 600MHz	
Memory	On Board 512MB DDR3 SDRAM	
ROM	On-Board 32MB NOR Flash for OS	
LAN	Transmission standard	10BASE-T/100BASE-TX
	The number of channels	2ch
	Connector	RJ-45 Connector
	LED	Speed (Yellow), Link / Act (Green)
RS-422A/485	Transmission scheme	Asynchronous Serial Transmission(Full Duplex/Half Duplex)
	The number of channels	2ch
	Isolation	Bus Isolation/500VDC(without the surge protection component between SG and FG)
	Baud Rate	110-115.2kbps
	Connector	2 piece 3.5mm pitch 5pin Terminal (TX+, TX-, RX+, RX-, SG)
	Applicable wire	AWG28 - 16
	LED	Transmission (Yellow), receive (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(1ms)
	Surge protection element SG - FG	gas discharge tube arrester Discharge voltage : ±300V, impulse current tolerance : 2000A(8/20us, 10 times)
SD Card slot	Standard	SD standard follow
	Connector	SD Memory Card slot
	LED	Read/Write (Yellow)
RS-232C	Baud Rate	110-115.2kbps
	Isolation	Non-isolated
	The number of channels	1ch
	Connector	9pin D-SUB Connector(Male)
Digital Input Counter Input	LED	Transmission (Yellow), Receive (Yellow)
	Input type	Non-voltage input (negative logic) *1
	Isolation	Bus Isolation/500VDC, Photocoupler Isolation/1000V
	Maximum Input Voltage	30V
	The number of channels	4ch *It is possible to allocate 2ch to counter input
	Count Type	Up count
	Counter response speed	1kHz(max), Duty : 50%(max)
Digital Output	LED	D10-D13 (Yellow)
	Output type	Speed (Yellow), Link / Act (Green)
	Isolation	10BASE-T/100BASE-TX
	Maximum Output Voltage / Current	2ch
DI/CNT/DO	Counter response speed	RJ-45 Connector
	LED	Speed (Yellow), Link / Act (Green)
	Connector	2 piece 3.5mm pitch 10pin Terminal (N.C, D10, D11, D12, D13, DI_MCOM, DO0+, DO0-, DO1+, DO1-)
Analog Input	Applicable wire	AWG28 - 16
	Input type	Current Input
	Input range	0-20mA
	Maximum input rating	30mA
	Input impedance	250Ω
	The number of channels	Differential input 2ch
	Resolution	12bit
	Non-Linearity error *2	±7LSB
	Isolation	Bus isolation/500VDC, Inter Channel Isolation/200V
	Connector	2 piece 3.5mm pitch 3pin Terminal (AI+, AI-, SG)
LED	Applicable wire	AWG28 - 16
	LED	AI0-AI1 (Yellow)
Switch	Power(Green)/Status 1(Green)/Status2(Red)	
Switch	Reset SW, Shut Down SW, Full Duplex/Half Duplex Switching SW	
RTC	High-accuracy RTC equipped (Not equipped battery)	
Power supply *3	Rated input voltage	12 - 24VDC
	input voltage range	10.8 - 30VDC
	power consumption	12V 0.7A (Max.), 24V 0.4A (Max.)
	Connector	2 piece 3.5mm pitch 3pin Terminal (V+, V-, FG)
	Applicable wire	AWG28 - 16
Surge protection element V+ - V-, V- - FG	Surge protection element	Interactive TVS Diode Stand off voltage : ±30V, Peak pulse power : 400W(1ms)
	Surge protection element	Interactive TVS Diode Stand off voltage : ±30V, Peak pulse power : 400W(1ms)
External dimensions (mm)	188.0(W)×78.0(D)×30.5(H) (not include projection)	
Weight	250g	
Installation method	One-touch connection to 35mm DIN rails Mounting to the wall using the screws*4	
OS	Linux kernel 3.2	
Certification	RoHS,CE,FCC,VCCI	

Installation Environment Requirements

Item	CPS-MC341-ADSC1-111	
Operating / non-operating ambient Temperature	-20 - +60°C	
Operating / non-operating ambient Humidity	10 - 90%RH(No condensation)	
Floating dust particles	Not to be excessive	
Corrosive gases	None	
Noise resistance	Line noise	AC Line/±2kV *5 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 / 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 C60068-2-27-compliant, IEC60068-2-27-compliant)
Ground	Class D grounding (previous class 3 grounding), SG-FG/ non-conduction	

- *1 Data 0 corresponds to High level and Data 1 corresponds to Low level.
 *2 A linearity error approximately ±0.002%/°C of full-range may occur by ambient temperature.
 *3 Please use power cable with 3m or less.
 *4 It requires a mounting screws on the market.
 *5 use a CPS-PWD15AW12-01(option product)

External Dimensions



Support Software

M2M cloud package

Remote monitoring software associated with the cloud service.

M2M data collection package

Data acquisition software performed under the on-premises environment.

High-performance HMI software [ACTIVE TOUCH®]

High function-HMI software

Packing List

Product [CPS-MC341-ADSC1-111] ...1

Product guide ... 1

Warranty Certificate ...1

Serial number label ...1

I/O 3pin Connector(Power/Analog) ...3

I/O 5pin Connector (RS422/485) ...1

I/O 10pin Connector (Digital) ...1

List of Option

Power supply

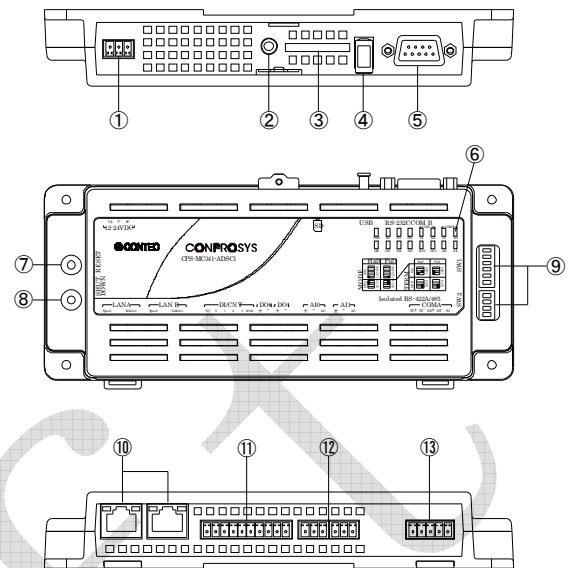
CPS-PWD-15AW12-01

: Power supply 15[w]

*Information about the option products, see the Contec's website.

Component Name

Component name of the product is shown in Figure.



- ① Power Connector : It uses the attached power connector.
- ② Debug Connector : Please do not use it.
- ③ SD Card Slot : It is for data storage.
- ④ USB for Debug : Please do not use it.
- ⑤ RS-232C : It is a RS-232C serial ports (male).
- ⑥ LED : It indicate status of this product.
- ⑦ Reset Switch : It reset this product.
- ⑧ Shut Down Switch : It shut down this product.
- ⑨ DIP Switch : It is used for System setup.RS-422A/485 setup
- ⑩ LAN : It is a Connector for LAN.
- ⑪ Digital I/O, Counter Input : It uses the attached 10pin connector.
- ⑫ Analog Input : It uses the attached 3pin connector.
- ⑬ It uses the attached 5pin connector.