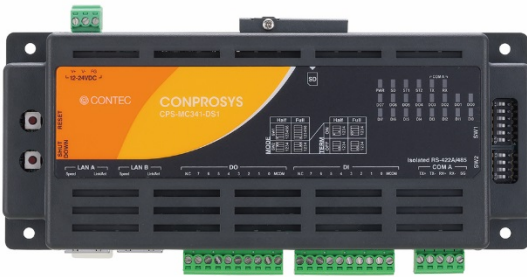


## CONPROSYS Series Digital Input/Output Module CPS-MC341-DS1-111



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

### Features

#### Measurement, Collection

The product measures data by external sensor and sends data 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 RS-422A/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 isolation and surge protection. (RS-422A/485, digital I/O)

Because between RS-422A/485 and CPU, digital I/O 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  $\pm 70V$  in RS-422A / 485, risk of malfunction and damage by surges can reduce.

The product is an IoT/M2M controller with isolated RS-422A/485, isolated digital input, isolated digital output, 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.

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

As the product supports a wide range of power (10.8 to 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.

### Packing List

Product [CPS-MC341-DS1-111] ...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

## Specification

### Function specification

Item		CPS-MC341-DS1-111
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	1ch
	Isolation	Bus Isolation/500VDC (Not mounted surge protective parts between SG and FG)
	Baud Rate	300bps - 115.2kbps
	Connector	2-piece 3.5mm pitch 5-pin 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(8/20μs, 10 times)
	Standard	SD standard follow
	Connector	SD Memory Card slot
LED	Read/Write (Yellow)	
Digital Input	Input type	Non-voltage input (negative logic*1)
	Isolation	Photocoupler Isolation/1000V
	Open-circuit Impedance	10kΩ or more
	Short-circuit Impedance	500Ω or less
	Input Resistance	3.3kΩ
	The number of channels	8ch
	LED	DI0 - DI7 (Yellow)
Digital Output	Connector	2-piece 3.5mm pitch 10-pin Terminal (MCOM, DI0, DI1, DI2, DI3, DI4, DI5, DI6, DI7, N.C)
	Applicable wire	AWG28 - 16
	Output type	Open Collector Output (Compatible with current sink) (Negative logic *1)
	Isolation	Opto-isolation /1000V
	Maximum Output dielectric strength / Current	24V/100mA
	Residual Voltage with Output ON	0.5V or less (Output current ≤ 50mA), 1.0V or less (Output current ≤ 100mA)
	The number of channels	8ch
LED	DO0 - DO7 (Yellow)	
Power supply *2	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(1ms)
	V+ - V-, V- - FG	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*3	
OS	Linux kernel 3.2	

\*1 Data 0 corresponds to High level and Data 1 corresponds to Low level.

\*2 Please use power cable with 3m or less.

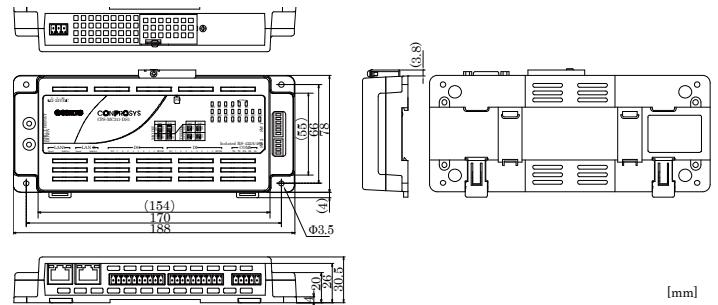
\*3 It requires a mounting screws on the market.

### Installation Environment Requirements

Item	CPS-MC341-DS1-111	
Operating / non-operating ambient Temperature	-20 to +60°C	
Operating / non-operating ambient Humidity	10 to 90%RH (No condensation)	
Floating dust particles	Not to be excessive	
Corrosive gases	None	
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 / 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 1.1ms in X, Y, and Z directions JIS C60068-2-27-compliant, IEC60068-2-27-compliant)
Ground Standard	Class D grounding (previous class 3 grounding), SG-FG/ non-conduction VCCI Class A FCC Class A CE Marking (EMC Directive Class A, RoHS Directive)	

\*4 When you use the CPS-PWD15AW12-01 (optional product)

### Physical Dimensions



### Support Software & Service

Cloud-based remote monitoring service "CONPROSYS cloud Data Service"

Monitoring in the on-premises environment "CONPROSYS data collection software"

Driver software that strengthens the collaboration with devices. "OPC Server Software"

High-performance HMI software "ACTIVE TOUCH"

### List of Option

#### DIN rail mounting power supply

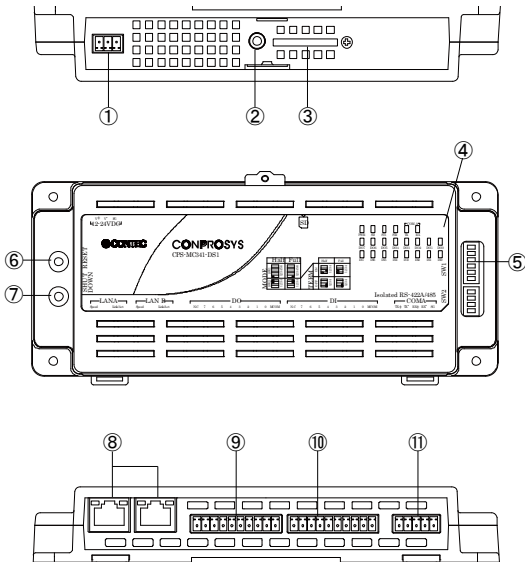
CPS-PWD-15AW12-01: DIN rail mounting power supply 15[w]  
(Input: 100 - 240VAC, output 12VDC 1.3 A)

#### SD card

SD-2GB-B: SD card 2GB

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

## Component Name



- 1 Power Connector : It uses the attached 3pin connector.
- 2 Debug Connector : Please do not use it.
- 3 SD Card Slot : It is for data storage.
- 4 LED : It indicate status of this product.
- 5 DIP Switch : It is used for System setup.RS-422A/485 setup
- 6 Reset Switch : It reset this product.
- 7 Shut Down Switch : It shut down this product.
- 8 LAN : It is a Connector for LAN.
- 9 Digital Output(DO) : It uses the attached 10pin connector.
- 10 Digital Input(DI) : It uses the attached 10pin connector.
- 11 RS-422A/485 : It uses the attached 5pin connector.