DATENBLATT

CPS-PCS341MB-DS1-1201

HABEN SIE FRAGEN ODER
WÜNSCHEN SIE EIN INDIVIDUELLES ANGEBOT?
Unser Team berät Sie gerne persönlich.

TELEFON + 49 (0) 81 41/36 97-0
TELEFAX + 49 (0) 81 41/36 97-30
E-MAIL info@plug-in.de
WWW.PLUG-IN.DE

ADRESSE
Am Sonnenlicht 5
D-82239 Alling bei München

Erwähnte Firmen- und Produktnamen sind zum Teil eingetragene Warenzeichen der jeweiligen Hersteller.

CONPROSYS Series
CODESYS Modbus Master

CPS-PCS341MB-DS1-1201

* Specifications, color and design of the products are subject to change without notice.
* CODESYS® is a registered trademark of 3S-Smart Software Solutions GmbH.

This product is a Modbus Master controller with isolated digital input and output (Input: 4ch, Output: 4ch), RS232C, and LAN interface. You can affix the stacking devices of our CONPROSYS series as you desire. (up to 16 devices)

* The total current consumption of the stacking devices should be less than 3.3A.

This product contains the * CODESYS® Soft PLC.
You can create your own PLC program and run with the CODESYS software.

* CODESYS® is a device-independent PLC-programming system that is complied with the IEC 61131-3 standard and supports all standard programming languages such as ST or LD.

* 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 November, 2018.

Features

Collaborate with the CODESYS
This product features the CODESYS* Soft PLC. CODESYS is a device-independent-PLC-programming system that is complied with the IEC 61131-3 standard and supports all standard programming languages such as ST and LD.

Along with Modbus TCP Master
Modbus is a communication protocol widely applied in the industrial field. Data collecting and controlling can be carried out with Modbus TCP Slave compliant devices.

Together with OPC-UA Server
OPC UA (Unified Architecture) is an advanced model of OPC specifications, which features refined capability of transmitting and receiving semantic description data. OPC-UA is a platform independent standard based on TCP. The product can be operated with HMI and SCADA software that are provided from differing makers and applicable to OPC-UA client.

Configurative modules
You can set the modules as you desire up to 16 modules. The total current consumption of the configurative modules should be less than 3.3A.

No base board required.
This product does not require a base board to install or connect. It helps set and remove the module(s) easily and smoothly.

Optocoupler Isolation Input (Compatible with current sink output) and semiconductor relay output
The product has the switchable four channels of Optocoupler Isolation Input (Compatible with current sink output) and semiconductor relay output. It is usable for external switch inputting or LED lighting.

Max. 115,200bps RS-232C Serial Communication
The Product has one RS-232C-standard serial port. Baud rates from 300 to 115,200 bps can be set.

Compact Design
Compact design, 44.7 (W) ×94.7 (D) ×124.8 (H) mm, features flexibility in installation.

Adaptable to a wide range of temperature 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.

A powerful running platform without fan
The product contains the ARMRCortexR-A8 processor (600MHz) and the DDR3 512MB system memory.

Decrease malfunctions or damages by bus isolation and surge protection. (Digital input/output)
Electrical isolation between the digital input/output and CPU can block up the electrical noise flow.

Installation easy with two pieces of terminal support and DIN rail
You can remove a terminal connector without a screwdriver so that it can shorten the time of the replacement. As the product is mounted on the DIN rail, removing and replacing are easy as well.

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

No electrolytic capacitor
Without an electrolytic capacitor, which has a limited life, we are creating the product with a longer life.

Packing List

Product [CPS-PCS341MB-DS1-1201] ...1
End Cover...1(attached to the product)
Product guide ... 1
Warranty Certificate ...1
Serial Number Label ...1
3-pin Connector...1
6-pin Connector...1
CODESYS Runtime License...1 (attached to the backside of the product)

※ Use the supplied plastic DIN rail when connecting this product and a module on a desk top for system development or validation. If you use the supplied plastic DIN rail in the field, it cannot be covered by warranty. Therefore, when you set the product and module in the field, use the commercially available DIN rail.

Specifications

Function specifications

Item		CPS-PCS341MB-DS1-1201
CODESYS Compatible Function	Version	V3.5 SP7 Patch2 or any later version
	Language	LD, SFC, FBD, ST, IL, CFC (IEC61131-3 compliant)
	Field Bus	Modbus TCP Master / Slave
	Communication Protocol	OPC UA Server
Program Size	ROM Size	1MB
	The Number of Maximum Steps	250K steps
CPU Basic Performance	Basic Command Operation Speed (LD)	1.6 nsec
	Applied Command Operation Speed (ST)	5.8 nsec
	Jitter	Maximum 300 µsec approx.
	Scan Time	74µsec (at 20000 Steps)

Hardware Specifications

Item		CPS-PCS341MB-DS1-1201
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)
USB	Transmission Standard	USB2.0 standard follow
	The Number of Channels	1
	Connector	TYPE-A
SD Card Slot	Standard	SD standard follow
	Connector	SD Memory card slot
	LED	Read/Write (Green)
RS-232C	Baud Rate	300 - 115.2kbps
	Data length	5, 6, 7, 8 bits 1, 1.5, 2 stop bits
	Parity check	Even, Odd, Non-parity
	Isolation/Voltage Resistance	Non-isolated
	The Number of Channels	1
	Connector	9-pin D-SUB Connector (Male)
	LED	Transmission (Green), Reception (Green)
Digital Input and Output	Input Type	Optocoupler Isolation Input (Compatible with current sink output) (negative logic) *1
	Isolation (input)	Optocoupler Isolation
	Isolation/Voltage Resistance (input)	1000V
	Number of Input Signal Channels	4
	Open-Circuit Impedance	10kΩ and more
	Short-Circuit Impedance	500Ω or less
	Response time (Digital Input)	Within 200µsec
	Interrupt (Digital Input)	4 interrupt input signals are arranged into a single output of interrupt signal. An interrupt is generated at the rising edge (HIGH-to-LOW transition) or falling edge (LOW-to-HIGH transition). (setting can be done by software)
	Output Type	Semiconductor relay output
	Output Isolation	Photo MOS isolation
	Output Voltage Resistance	1000V
	Number of Output Signal Channels	4 *usable as both digital input and output
	Maximum Output Voltage	13.2V/100mA
	Response time (Digital Output)	Within 2msec
	ON resistance	8Ω or less (at 25 °C)
	OFF leakage current	4µA or less (at 25 °C)
	Surge protection element	Interactive TVS Diode Stand off voltage : ±30V, Peak pulse power : 400W (1msec)
	LED	DIO0 - DIO3 (Green)
	Connector	2-piece 3.81mm pitch 6pin terminal (N.C, DIO3, DIO2, DIO1, DIO0, MCOM)
	Applicable Wire	AWG28 - 16
Stacking Bus	Maximum numbers of stacking	16 *2
LED		Power (Green) / Status1 (Green) / Status2 (Red) / Error (Red)
Switch		Power SW, Rotary SW, DIP SW
RTC		RTC equipped (battery within)
Power Supply *3	Rated Input Voltage	24VDC
	Input Voltage Range	21.6-26.4VDC
	Power Consumption	Controller only: 24V 0.3A (Max.), with stacking device(s): 24V 3.6A (Max.)
	Connector	2-piece 3.5mm pitch 3-pin terminal (V+, V-, FG)
	Applicable Wire	AWG20 - 16
	Surge Protection Element V+ - V-, V- - FG	Interactive TVS Diode Stand off voltage : ±30V, Peak pulse power : 400W (1msec)
Physical Dimensions (mm)		44.7 (W)×94.7(D)×124.8(H) (not include projection)
Weight		300g
Installation Method		Quick mounting to 35mm the DIN rail
OS		Linux kernel 3.2

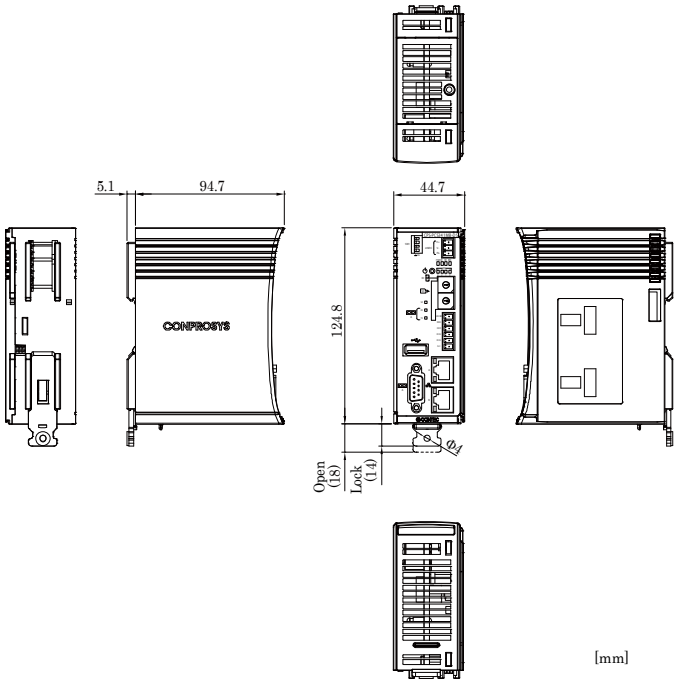
*1 Data "0" corresponds to High level and Data "1" corresponds to Low level.
*2 The total current consumption of the devices should be less than 3.3A.
*3 Use power cable within 3meters.

Installation Environment Requirements

Item		CPS-PCS341MB-DS1-1201
Operating Ambient Temperature		-20 - +60°C *4
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 *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 *6/ semi-amplitude vibration 0.15mm, 57 - 150Hz / 2.0G 40 minutes each in X, Y, and Z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant)
Impact Resistance		15G half-sine shock for 11ms in X, Y, and Z directions (JIS C60068-2-27-compliant, IEC60068-2-27-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), UL

*4 If you use the USB with bus power, operate the product at between -20 and +55°C.
*5 When you use the optional power product.
*6 When you use an optional power product: 10-55Hz (See the manual of optional power product for details)

Physical Dimensions



[mm]

List of Option

DIN rail fitting power supply

CPS-PWD-90AW24-01 : DIN rail fitting power supply 90[w]
(Input: 100 - 240VAC, output: 24VDC 3.8 A)
CPS-PWD-30AW24-01 : DIN rail fitting power supply 30[w]
(Input: 100 - 240VAC, output: 24VDC 1.3 A)

SD Card

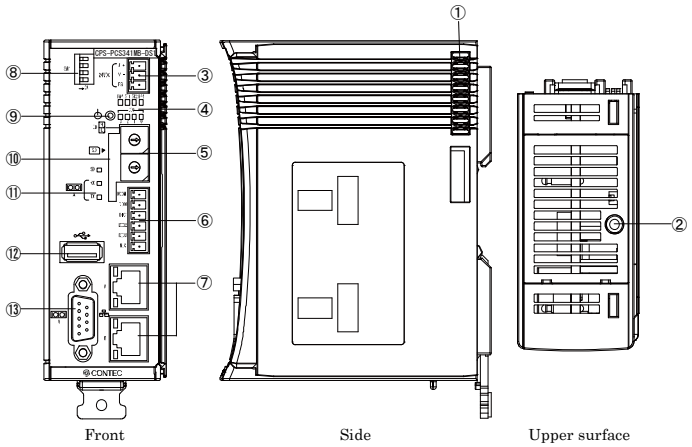
SD-2GB-B : SD Card 2GB
SD-4GB-A : SD Card 4GB

Stacking Device

CPS-DIO-0808L : with digital input/output (no built-in power supply)
CPS-DIO-0808BL : with digital input/output (built-in power supply)
CPS-DIO-0808RL : with digital input/output (current source)
CPS-DI-16L : with digital input (16ch, current sink)
CPS-DI-16RL : with digital input (16ch, current source)
CPS-DO-16L : with digital output (16ch, current sink)
CPS-DO-16RL : with digital output (16ch, current source)
CPS-COM-1PC : with RS-232C (contains 1port)
CPS-COM-2PC : with RS-232C (contains 2 ports)
CPS-COM-1PD : with RS-422A/485 (1channel)
CPS-COM-2PD : with RS-422A/485 (2 channels)
CPS-AI-1608LI : with analog input (voltage input 8 channels)
CPS-AI-1608LI : with analog input (current input 8 channels)
CPS-AO-1804LI : with analog output (current output 4 channels)
CPS-AO-1804LI : with analog output (voltage output 4 channels)
CPS-CNT-32021 : with counter input
CPS-RRY-4PCC : with Relay output
CPS-SSI-4P : with temperature sensor input

* Visit the Contec website regarding information on the optional products.

Component Name



1. Stack Bus: Used for the stacking device power supply and communication.
2. Maintenance Connector: Please do not use it.
3. Power Connector: Use the 3-pin connector, included in this package.
4. LED 1: Indicates the status of the product.
5. Rotary Switch: Used for user setup.
6. Digital I/O: Use the 6-pin connector, included in this package.
7. LAN: It is a connector for LAN.
8. DIP Switch: Used for user setup.
9. Power Switch: Used for controlling of the power supply.
10. SD Card Slot: It is for data storage.
11. LED 2: Indicates the status of the product.
12. USB: It is a USB port.
13. RS-232C: It is a RS-232C serial ports (male).