
Break into the IoT Revolution with CONPROSYS™

For over 30 years, Contec has led the PC- and factory automation markets with a wide variety of interface boards, sensors, and field equipment. Our remote monitoring systems are integrated in more than infrastructure equipment. Our latest innovation is the result of extensive research with a path to IoT/M2M Solutions. IoT device offering cloud services.
CONPROSYS Functionality

Data Capitalization

Data Transmission

- Supports OPC UA Standard
- Easily transmit data over mobile wireless Internet
- The data collected is easily displayed on SCADA and HMI systems, adding monitoring capability to equipment. CONTEC provides free OPC server software.

Connectivity

- Signal Input and Output
- 3G / 920MHz Communication
- CONPROSYS supports a wide range of equipment with interfaces for analog and digital signal input and output. CONPROSYS is available in integrated and configurable models. The integrated type is an all-in-one device. The configurable type offers high degrees of expandability.

Active Processing

- Modbus Master
- PLC Master
- Easily connect to a variety of PLC devices to collect and monitor data.

Monitoring

- Easily configure, collect, measure and monitor data with up to 30 different communication devices.

Task Scripting

- SIMO/SCADA, HMI, and other systems
- Easily transmit data to collect PLC data with mobile Internet.
- Cloud Server
- CONPROSYS supports 3G communication and 920MHz communication.

Data can be transmitted through 3G network technology.

CONPROSYS uses a browser-based graphical interface for programming. Scripting language is also supported.
## M2M Controller Series

The M2M Controller Series consists of two types of controllers: a stand-alone integrated type and an I/O interface expandable configurable type. The system is adaptable to a wide variety of locations, wiring methods and number of I/O channels. You can build a custom control and monitoring system to meet your specific needs.

### Integrated Type

The integrated type offers a wide range of models with a variety of I/O interfaces and communication protocols.

- DIN rail or fixed mounting options available
- Embedded CPU
- Operating temperature range: -20 – 60°C (-4 – 140°F)
- Durable hardware reduces maintenance costs
- Daisy-chain connections do not require a HUB
- Power supply voltage: 12 – 24 VDC
- Physical dimensions: 188.0(W)x78.0(D)x30.5(H) mm (7.40”x3.07”x1.20”) (does not include protrusions and antenna)

### Configurable Type

The configurable type allows users to add a variety of I/O modules to a CPU controller providing ultimate flexibility.

<table>
<thead>
<tr>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN rail mountable</td>
</tr>
<tr>
<td>Embedded CPU</td>
</tr>
<tr>
<td>Operating temperature range: -20 – 60°C (-4 – 140°F)</td>
</tr>
<tr>
<td>Durable hardware reduces maintenance costs</td>
</tr>
<tr>
<td>Daisy-chain connections do not require a HUB</td>
</tr>
<tr>
<td>Power supply voltage: 24 VDC</td>
</tr>
<tr>
<td>Physical dimensions: 44.7(W)x94.7(D)x124.8(H) mm (1.76”x3.83”x4.91”) (does not include protrusions and antenna)</td>
</tr>
</tbody>
</table>

### Lineup

<table>
<thead>
<tr>
<th>Type</th>
<th>Function</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi Input and Output</td>
<td>CPS-MC341-A12SC1-111</td>
<td></td>
</tr>
<tr>
<td>Multi Input and Output with build-in OPC UA server</td>
<td>CPS-MC341-A12SC1-911</td>
<td></td>
</tr>
<tr>
<td>Multi Input and Output + RS-485</td>
<td>CPS-MC341-A12S2-911</td>
<td></td>
</tr>
<tr>
<td>Multi Input and Output + 3G WAN (Global)</td>
<td>CPS-MC341G-A12SC1-111</td>
<td></td>
</tr>
<tr>
<td>Multi Input and Output + 3G WAN (Japan only)</td>
<td>CPS-MC341G-A12S2-911</td>
<td></td>
</tr>
<tr>
<td>Digital Input and Output</td>
<td>CPS-MC341-D11-111</td>
<td></td>
</tr>
<tr>
<td>Digital Input and Output + RS-232C</td>
<td>CPS-MC341-D11-111</td>
<td></td>
</tr>
<tr>
<td>Digital Input and Output + CAN</td>
<td>CPS-MC341-D11-111</td>
<td></td>
</tr>
<tr>
<td>Analog Input and Output</td>
<td>CPS-MC341-A11-111</td>
<td></td>
</tr>
<tr>
<td>Controller</td>
<td>CPS-MC341-A12SC1-111</td>
<td></td>
</tr>
<tr>
<td>Controller + 3G WAN</td>
<td>CPS-MC341G-A12SC1-111</td>
<td></td>
</tr>
<tr>
<td>Controller + 920MHz LAN (Japan only)</td>
<td>CPS-MC341G-A12S2-111</td>
<td></td>
</tr>
</tbody>
</table>

Refer P14-15 for line up of configurable type I/O modules.
Easily connect existing devices with IoT system

**M2M Gateway series**

A single CONPROSYS controller can collect data from multiple PLC controlled equipment. M2M Gateway series supports devices from a variety of vendors, including Mitsubishi MELSEC series and Omron Sysmac series.

### Lineup

**Integrated Type**

<table>
<thead>
<tr>
<th>Top Function</th>
<th>Model</th>
<th>Interfaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC data logger + Multi I/O</td>
<td>CPS-MG341-ADSC1-111</td>
<td></td>
</tr>
<tr>
<td>PLC data logger + Multi I/O + 3G</td>
<td>CPS-MG341G-ADSC1-111</td>
<td></td>
</tr>
</tbody>
</table>

*Common features are same as integrated type M2M controllers. Refer P6 for details.

**Remote Equipment Monitoring Through the Cloud**

- Monitors equipment from anywhere in the world.
- Gain business efficiencies with data analytics.

### Local Host Data Collection

- Includes data collection software for Windows PC at no cost.
- Collected data can be used by SCADA systems via Modbus/TCP.

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**Monitoring PLC Device Memory**

- Reads data from PLC memory (I/O status, data register, link register, file register, etc.)
- Transmits collected data to the cloud through simple settings.

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**Remote Equipment Monitoring Task Scripting**

- PLC Master
- Modbus Master
- OPC Data Transmission OPC UA Signal I/O 3G

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**Modbus**

**OPC**

**CONPROSYS**

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**Easily connect data from PLCs with a few simple settings**

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**Support local data collection**

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**Local data collection**

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**Up to 10 systems and 100 register groups**

Connect up to 10 PLCs using an Ethernet connection or up to 30 PLCs using a serial connection. Connect up to 100 register groups to collect up to 1,000 points of data.

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**Visit www.contec.com for a full list of PLC and Modbus equipment supported**

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**Conprosys**

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**Developing with CONPROSYS**

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**Refer P4 and P5 for icon definitions**

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**Note**

- SIM card not included. Standard size SIM card only. Visit www.contec.co.jp for details.
- *2 Counter inputs share with digital inputs.
- *3 Counter inputs share with digital inputs.
- *4 Link up to 10 systems and 100 register groups.
**CONPROSYS Cloud Data Service**

Data collection and storage service transfers data from sensors and controllers to a cloud server.

**Easy to use IoT services**

- Simply connect sensors to the controller to collect data.
- Easily store the collected data in the cloud.
- The data collected can also be transmitted using task scripting functions.

**Easily manage data**

The cloud server software provides a number of functions to manage the data collected. Data collected can easily be viewed on a screen with simple graphs and lists. Contec can customize reporting functionality for the user.

**Advanced security**

Contec’s cloud data services offer advanced security options that eliminate the user’s need to identify and manage alternate security measures.

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**Support Software**

**Data collection software**

CONPROSYS provides free Windows-based software to store data on a local computer or local network environment. [Free download from our HP]

**OPC server software**

This software uses an OPC server to convert CONPROSYS communication methods into an OPC interface, which is the worldwide standard industrial protocol used in SCADA and similar systems. [Free download from our HP]

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**Software Development Kit**

**CONPROSYS Linux SDK**

This software development tool helps users to write their own programs when they use a CONPROSYS hardware device as a Linux controller.

- Integrated type: CPS-MC341-ADSCx, CPS-MC341-Ax, CPS-MC341-DSx, CPS-MC341-G-ADSCx
- Configurable type: CPS-MC341-G-Dsx

- Operation environment:
  - Needs a host PC
  - Linux distribution: Ubuntu 14.04 (32-bit / 64-bit)
  - More than 32 GB memory space
  - An administrative privilege user who can execute “sudo”.

**Two software development environments**

- Cross development:
  - Ubuntu 14.04
  - Serial Monitor

- CONPROSYS self development:
  - Windows PC
  - Serial Monitor

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**Connection with Microsoft Azure**

Contec is a Microsoft Azure Certified IoT Partner. The CPS-MC341-ADSC2 uses CONPROSYS Linux SDK received the “Azure Certified for IoT” certification which means this controller has passed the Azure IoT Hub connection test.

Connections with FUJITSU Cloud Service IoT Platform

The CPS-MC series and the CPS-MCS series using Linux SDK are certified devices of the IoT Platform Read Program.

Connections with Saison information system HULFT IoT

The CPS-MC series and the CPS-MCS series using Linux SDK are “HULFT IoT Ready” certified.
Enter into the IoT era with a real time control engine

PAC series

- IEC 61131-3 standard CODESYS programming
- Rich functionality to build an open system in an industrial application.

**Lineup**

**Integrated Type**

- EtherCAT model: CPS-PC341EC-1-9201
- Modbus model: CPS-PC341MB-ADSC1-9201

**Configurable Type**

- EtherCAT model: CPS-PCS341EC-DS1-1201
- Modbus model: CPS-PCS341MB-DS1-1201

**EtherCAT Slave Unit**

CPS-ECS341-1-011

- **EtherCAT slave unit**
  - EtherCAT features allow the I/O modules to be controlled from a distance.
  - Up to 16 I/O modules can be stacked to one slave unit.
- **Work with CONPROSYS PAC series controllers**
  - Together with the PAC series EtherCAT master controller, an all Contec devices EtherCAT system is available.
- **Modular Device Profile (MDP)**
  - The EtherCAT slave unit complies with the EtherCAT Modular Device Profile (MDP) standard (ETG.5001.1).
  - An MDP standard supported master will recognize and register the I/O modules automatically.
- **Daisy chain connection**
  - Each slave unit is equipped with an input port and an output port. Up to 65,535 slave units can be connected to one master.

- **Web monitoring function**
  - CONPROSYS PAC series includes a web server function and web screen creation software. Monitoring screens can be developed in a user friendly web browser environment. Devices can be monitored through a web browser without the use of a cloud server. No programming experience required.

- **Fieldbus master function**
  - The built-in customized CODESYS Runtime engine supports EtherCAT / Modbus TCP master functions. In the CODESYS integrated development environment, fieldbus I/O can be directly assigned to variables in the same manner as the built-in I/O of a PAC integrated controller and the attached I/O of a PAC configurable controller.

- **Built-in OPC UA server for SCADA/MES/ERP linking**
  - The built-in OPC UA server provides the ability to embed the CONPROSYS PAC series controller into a host SCADA system or other applications that support OPC UA specifications.
### Digital Input and Output Modules

<table>
<thead>
<tr>
<th>Model</th>
<th>Input</th>
<th>Output</th>
<th>Power Consumption</th>
<th>Connectors</th>
<th>Controller series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-DIO-0808L</td>
<td>8-ch</td>
<td>9-ch</td>
<td>50mA (Max.)</td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-DIO-0808BL</td>
<td>8-ch</td>
<td>9-ch</td>
<td>120mA (Max.)</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-DIO-0808BL</td>
<td>8-ch</td>
<td>9-ch</td>
<td>120mA (Max.)</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-DI-16L</td>
<td>16-ch</td>
<td></td>
<td>N/A</td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-DI-16RL</td>
<td>16-ch</td>
<td></td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-DO-16L</td>
<td>16-ch</td>
<td></td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-DO-16RL</td>
<td>16-ch</td>
<td></td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
</tbody>
</table>

### Analog Input and Output Modules

<table>
<thead>
<tr>
<th>Model</th>
<th>Input</th>
<th>Output</th>
<th>Power Consumption</th>
<th>Connectors</th>
<th>Controller series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-AI-1608LI</td>
<td>8-ch differential input, 16-bit resolution, +10V Bus isolated</td>
<td></td>
<td>100mA (Max.)</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-AO-1604LI</td>
<td>4-ch current input, 16-bit resolution, 0-30mA Bus isolated</td>
<td>30mA (Max.)</td>
<td></td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-AO-1604VLI</td>
<td>4-ch voltage output, 16-bit resolution, +10V Bus isolated</td>
<td></td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-AI-1608ALI</td>
<td>8-ch differential input, 16-bit resolution, -20mA Bus isolated</td>
<td></td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
</tbody>
</table>

### Counter Modules

<table>
<thead>
<tr>
<th>Model</th>
<th>Input</th>
<th>Output</th>
<th>Power Consumption</th>
<th>Connectors</th>
<th>Controller series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-CNT-3202I</td>
<td>Phase A+/B+</td>
<td>1x2ch</td>
<td>N/A</td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>PAC</td>
</tr>
</tbody>
</table>

### Relay Modules

<table>
<thead>
<tr>
<th>Model</th>
<th>Input</th>
<th>Output</th>
<th>Power Consumption</th>
<th>Connectors</th>
<th>Controller series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-RRY-4PC</td>
<td></td>
<td>4-ch</td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
</tbody>
</table>

### Sensor Module

<table>
<thead>
<tr>
<th>Model</th>
<th>Supported sensor / wiring method</th>
<th>No. of CH / Isolation</th>
<th>Power Consumption</th>
<th>Connectors</th>
<th>Controller series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-SSI-4P</td>
<td>P1100 / Three-wire or four-wire</td>
<td>4-ch / Bus isolated</td>
<td>50mA (Max.)</td>
<td></td>
<td>PAC</td>
</tr>
</tbody>
</table>

### Serial Communication Modules

<table>
<thead>
<tr>
<th>Model</th>
<th>Transmission Scheme</th>
<th>No. of CH / Isolation</th>
<th>Power Consumption</th>
<th>Connectors</th>
<th>Controller series</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-COM-1PC</td>
<td>RS-232C</td>
<td>1-ch / Bus isolated</td>
<td>90mA (Max.)</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-COM-2PC</td>
<td></td>
<td>2-ch / Bus isolated</td>
<td>N/A</td>
<td></td>
<td>PAC</td>
</tr>
<tr>
<td>CPS-COM-1PD</td>
<td>RS-423A/RS-485</td>
<td>1-ch / Bus isolated</td>
<td>110mA (Max.)</td>
<td></td>
<td>PAC</td>
</tr>
</tbody>
</table>

### Options

#### Power Supplies

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model</th>
<th>Input</th>
<th>Output</th>
<th>Physical Dimensions</th>
<th>Mount Method</th>
<th>Support Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-PWD-15AW12-01</td>
<td>12VDC, 1.3A (Max.)</td>
<td>120mA (Max.)</td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>Integrated type controllers</td>
<td>PAC</td>
<td></td>
</tr>
<tr>
<td>CPS-PWD-20AW24-01</td>
<td>24VDC, 1.5A (Max.)</td>
<td>60mA (Max.)</td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>Confurtable type controllers</td>
<td>PAC</td>
<td></td>
</tr>
<tr>
<td>CPS-PWD-90AW24-01</td>
<td>24VDC, 3.6A (Max.)</td>
<td>420mA (Max.)</td>
<td>Screw terminal block (3.81mm/0.15” pitch)</td>
<td>Confurtable type controllers</td>
<td>PAC</td>
<td></td>
</tr>
</tbody>
</table>

#### 3G Antennas

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model</th>
<th>Frequency Band</th>
<th>Cable Length</th>
<th>Antenna Gain</th>
<th>Physical Dimensions</th>
<th>3G WiNi models</th>
<th>Support Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS-ANT-R3-01</td>
<td>800MHz band to 2640MHz</td>
<td>3m (0.9ft)</td>
<td>3m (0.9ft)</td>
<td>20dBi</td>
<td>1.65”x1.65”x3.66” (Not including protrusions and cable)</td>
<td>3G WiNi models</td>
<td>PAC</td>
</tr>
</tbody>
</table>

#### AC Power Cable

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Model</th>
<th>Rating</th>
<th>Cable Length</th>
<th>Termination</th>
<th>Support Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPC-ACC003E</td>
<td>125VAC 7A</td>
<td>0.6m(2.0ft)</td>
<td>3-pole round terminal</td>
<td>Power supplies</td>
<td>PAC</td>
</tr>
</tbody>
</table>