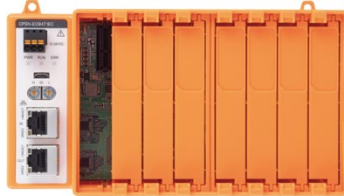


CONPROSYS nano Series
Remote I/O Model CPU Unit (EtherCAT, 4slot)
CPSN-EOB471EC-41
Remote I/O Model CPU Unit (EtherCAT, 8slot)
CPSN-EOB471EC-81



CPSN-EOB471EC-41



CPSN-EOB471EC-81

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

Hardware Features

I/O module expansion

With this product, you can freely add I/O modules to match the necessary functions from among the varied collection of CONPROSYS nano series I/O modules.

Easy installation and removal of I/O modules

I/O modules can be installed and removed without any tools.

Modular Device Profile (MDP)

It is compliant with ETG.5001.1, the Modular Device Profile (MDP) standard for EtherCAT.

An EtherCAT MainDevice that supports the MDP standard automatically recognizes and registers I/O modules connected to the slots.

Supports various operation modes

In addition to the FreeRun mode, it also supports the SM synchronization mode.

Minimum cycle time: 125 μsec

With 32 digital inputs and 32 digital outputs, the PDO minimum cycle time is 125 μsec when configured in the SM synchronization mode.

* When CPSN-EOB471EC-81 is equipped with CPSN-DI-08L x 4 slots and CPSN-DO-08L x 4 slots(POD size : 8Byte).

Compatible with CONPROSYS PAC Series

By combining it with our PAC Series, you can build an EtherCAT system consisting entirely of Contec devices.

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.

Installation easy with a two-piece terminal on DIN or with screws

Regarding the power connector, 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. Furthermore, as the product is mounted on the DIN rail, removing and replacing are easy as well. This product can also be installed with screws, so it supports a wide range of installation situations.

Compact Design (CPSN-EOB471EC-41 only)

Compact design, 110 (W) × 74.8 (D) × 95 (H) mm, features flexibility in installation.

This product is a CPU unit compatible with the EtherCAT protocol.

Equipped with 4 (or 8) expansion slots, it allows you to build flexible EtherCAT SubDevice configurations by combining CONPROSYS nano Series I/O modules to suit your functional requirements.

You can use it for applications such as semiconductor and flat panel display (FPD) manufacturing equipment, machine equipment, test benches, conveying systems, and more.

- * 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 August 2025.

Specifications

Function specifications

Item		CPSN-EOB471EC-41	CPSN-EOB471EC-81
EtherCAT	Transmission standard	100BASE-TX	
	The number of channels	IN 1 port, OUT 1 port	
	Connector	RJ-45 Connector	
	LED	Act (Orange) / Link (Green)	
Operating mode		FreeRun mode, SM synchronous mode	
Address		Auto increment address method, Configuration station method	
Process Data		Variable PDO mapping	
Supported Profiles		CoE, FoE	
Expansion slot	Number of slots	4 Slot	8 Slot
	Maximum power supply	12 - 24V 200mA, 5V 250mA, 3.3V 200mA (per slot)	
	Number of insertions/removals	50 times (min)	
LED		PWR(Green) / RUN(Green) / ERR(Red)	
Switch		Rotary switch, Push switch	
Power supply *1	Rated input voltage	12 - 24VDC	
	Input voltage range	10.8 - 30VDC	
	Power consumption	<CPU Unit alone *2> 24V 0.05A (Typ.), 0.07A (Max), 12V 0.09A (Typ.), 0.12A (Max) <I/O Module> 24V 1.3A (Max), 12V 1.7A (Max)	<CPU Unit alone *2> 24V 0.05A (Typ.), 0.07A (Max), 12V 0.09A (Typ.), 0.12A (Max) <I/O Module> 24V 1.8A (Max), 12V 2.6A (Max)
	Connector	2 pieces 3.5mm pitch 3-pin Terminal (V+, V-, FG)	
	Surge protection element	Interactive TVS Diode Stand off voltage: ±30V, Peak pulse power: 400W (1ms)	
Physical dimensions (mm)		110(W) x 74.8(D) x 95(H)mm (not include projection)	179(W) x 74.8(D) x 95(H)mm (not include projection)
Weight		250g	350g
Installation method		Quick installation on a 35 mm DIN rail Vertical installation with screws *3	

*1 Use power cable within 3meters.

*2 With no expansion slot load.

*3 Commercially available screws are required.

Installation Environment Requirements

Item	CPSN-EOB471EC-41	CPSN-EOB471EC-81
Operating ambient temperature	Vertical installation : -20 - +60°C Vertical installation with an angle of 90° to the right/left, Horizontal installation : -20 - +55°C	Vertical installation : -20 - +60°C Vertical installation with an angle of 90° to the left, Horizontal installation : -20 - +55°C Vertical installation with an angle of 90° to the right : -20 - +50°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 (IEC61000-4-4 Level 3, EN61000-4-4 Level 3) Signal Line /±1kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3)
	Static electricity resistance	Touch /±4kV (EC61000-4-2 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 (IS C60068-2-6-compliant, IEC60068-2-6-compliant)	
Shock resistance	15G half-sine shock for 11ms in X, Y, and Z directions (IS 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, ISED	

*4 When an optional power product is used.

*5 When an optional power product is used : 10 - 55Hz (See the manual of optional power product for details)

Included Items

Product [CPSN-EOB471EC-41 or CPSN-EOB471EC-81] ...1

Power Connector ...1(Attached to the product)

Blank panel...3(or 7) *1 (Attached to the product)

Please read the following...1

*1 CPSN-EOB471EC-81 contains 7 pieces.

* This product is verified in conformity with our recommended power supply. In case you use other power supplies, thus, it may not be able to fulfil certification requirements. Please see the CONTEC website regarding power supply recommendation (<https://www.contec.com/>).

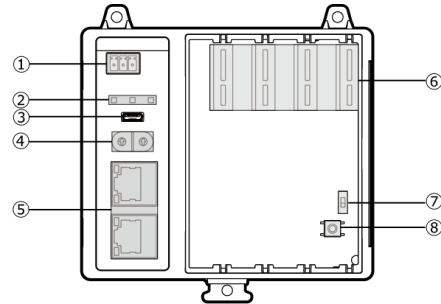
Optional Products

Product Name	Model type	Description
DIN rail fitting power supply	CPS-PWD-30AW24-01	Fitting power supply 30W (Input: 100 - 240VDC, Output: 24VDC 1.3A)
	CPS-PWD-90AW24-01	Fitting power supply 90W (Input: 100 - 240VDC, Output: 24VDC 3.8A)
I/O module	CPSN-DI-08L	with isolated digital input (input 8 channels, No built-in power supply)
	CPSN-DI-08BL	with isolated digital input (input 8 channels, built-in power supply)
	CPSN-DI-16BCL	with isolated digital input (input 16 channels, switchable between external and built-in power supplies, switchable between sink input and source input) * Input counter function not supported
	CPSN-DIO-08SL	with isolated digital input/output (input 8 channels, output 8 channels, sink output)
	CPSN-DO-08L	with isolated digital output (output 8 channels, sink output)
	CPSN-DO-08BL	with isolated digital output (output 8 channels, built-in power supply, sink output)
	CPSN-DO-08RL	with isolated digital output (output 8 channels, source output)
	CPSN-DO-08BRL	with isolated digital output (output 8 channels, built-in power supply, source output)
	CPSN-DO-16L	with isolated digital output (output 16 channels, sink output)
	CPSN-DO-16BL	with isolated digital output (output 8 channels, built-in power supply, sink output)
	CPSN-RRY-4PCA	with relay contact output (4channels)
	CPSN-AI-1208LI	with isolated analog input (12-bit voltage input 8 channels/current input 4 channels)
	CPSN-AI-2408LI	with isolated analog input (24-bit voltage input 8 channels/current input 4channels)
	CPSN-SSI-4C	with isolated thermocouple input (4channels)

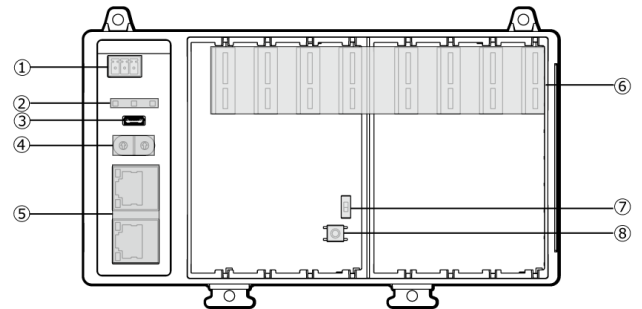
* Visit the CONTEC website regarding information on the optional products.

Name of each parts

CPSN-EOB471EC-41



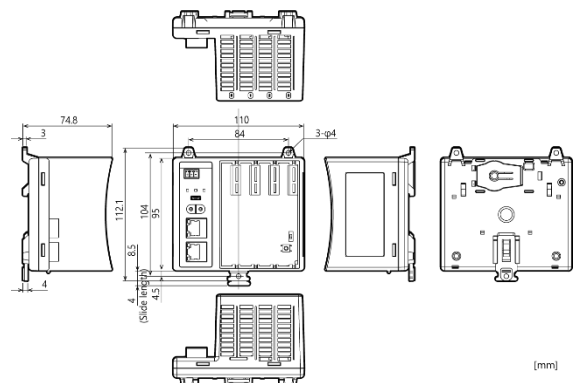
CPSN-EOB471EC-81



No.	Name	Function
1	Power Connector	Use the power connector (3 pin connector), included in this package.
2	LED Indicator	Indicates the status of the product.
3	microUSB port	Reserved
4	Rotary switch	Used to set the EtherCAT identification ID.
5	EtherCAT	Port for EtherCAT
6	Expansion slot	These are used to supply power to and communicate with I/O modules.
7	Slide switch	Reserved
8	Push switch	Used to initialize the SII configuration area and module settings.

Physical Dimensions

CPSN-EOB471EC-41



CPSN-EOB471EC-81

