

CONPROSYS Series
Analog Output Module
CPS-AO-1604LI (0-20mA Output)
CPS-AO-1604VLI (±10V Output)



*The photograph is a CPS-AI-1608LI.
* Specifications, color and design of the products are subject to change without notice.

Features

Bus-isolated analog output module providing highly accurate measurement

This product contains bus-isolated analog output (16bit, 4ch) that measures with a high degree of accuracy. Two product types are offered for voltage output or current output to suit the connecting targets.

CPS-AO-1604LI features the function of the analog current output (16bit, 4ch).
CPS-AO-1604VLI features the function of the analog voltage output (16bit, 4ch).

Compact design

Compact design, 25.2 (W)×94.7(D)×124.8 (H), features flexibility in installation.

Adaptable to a temperature range 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 two pieces of terminal support and DIN rail

You can install and remove a terminal connector without a screwdriver so that it can shorten the time of the replacement. As the product can be not only mounted on DIN rail, but also is removable along the side rails, replacing is simple and easy as well.

Equipped with LED for an operation check

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

No electrolytic capacitor battery

No electrolytic capacitor is used. The Contec is creating the product with a longer life.

This product is a configurable module to provide analog output interface and operates along with the configurable type CPU module controller of our CONPROSYS series. It has 4channels of high precision analog output per module and provides high accuracy.

* 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 July, 2022.

Packing List

- Product (one of the followings) ...1
[CPS-AO-1604LI, CPS-AO-1604VLI]
- Product Guide ... 1
- Warranty Certificate ...1
- Serial Number Label ...1
- 10-pin Connector ...1

Specifications

Function Specifications < CPS-AI-1608LI >

Item	CPS-AO-1604LI
Output type	Bus-isolated current output
Output range	0-20mA
Output channel	4 channels
Resolution	16 bit
Conversion accuracy *1	±1LSB(at 25°C) *2
Settling time *3	20µsec
Data buffer	4k-Word
Isolation	Bus Isolation
Voltage Resistance	500VDC
Connector	2-piece 3.81mmpitch 10-pin terminal
Applicable wire	AWG28 - 16
LED	Status(Green, Red)
Supply Voltage	24VDC ±10%
Current consumption	0.2A (Max)
Physical dimensions (mm)	25.2 (W)×94.7(D)×124.8(H) (not include projection)
Weight	200g
Installation method	Quick mounting onto 35mm DIN rail

*1 The non-linearity error means an error of approximately 0.18% occurs over the maximum range at -20°C and 60°C ambient temperature.

*2 When ripple 5mVrms power supply is applied to the load side. (KX-100L by TAKASAGO)

*3 Settling time is from when DAC data is set until the change of the analog value stops.

Function Specifications < CPS- AO-1604VLI >

Item	CPS-AO-1604VLI
Output type	Bus-isolated voltage output
Output range	±10V
Output channel	4 channels
Resolution	16 bit
Conversion accuracy *4	±15LSB(at 25°C)
Settling time *5	10μsec
Data buffer	4k-Word
Isolation	Bus Isolation
Voltage Resistance	500VDC
Connector	2-piece 3.81mmpitch 10-pin terminal
Applicable wire	AWG28 - 16
LED	Status(Green, Red)
Supply Voltage	24VDC ±10%
Current consumption	0.2A (Max.)
Physical dimensions (mm)	25.2 (W)×94.7(D)×124.8(H) (not include projection)
Weight	200g
Installation method	Quick mounting onto 35mm DIN rail

*4 The non-linearity error means an error of approximately 0.18% occurs over the maximum range at -20°C and 60°C ambient temperature.

*5 Settling time is from when DAC data is set until the change of the analog value stops.

Caution

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

Installation Environment Requirements

Item	CPS-AO-1604LI	CPS-AO-1604VLI
Operating ambient temperature	-20 - +60°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	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 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 C 60068-2-27 -compliant, IEC 60068-2-27 -compliant)
Standard	VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive), UKCA, UL/c-UL	

*6 When you use an optional power product: 10-55Hz (See the manual of optional power product for details)

List of Option

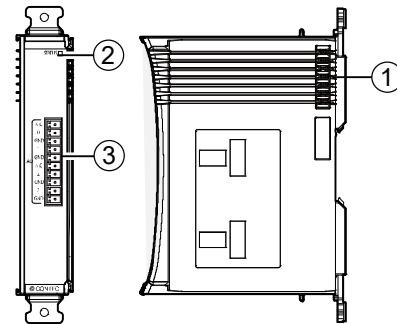
Configurable Type Controller

- CPS-MCS341-DS1-111 Configurable Type CPU module
- CPS-MCS341-DS1-131 Configurable Type CPU module + OPC UA server + MTConnect
- CPS-MCS341G5-DS1-130 Configurable Type CPU module +4G LTE WAN
- CPS-MCS341Q-DS1-131 Configurable Type CPU module +920MHz LAN
- CPS-ECS341-1-011 Ether CAT Slave Module

DIN rail mounting power supply

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

Component Name



No.	Name	Function
1	Stack Bus	Used for power supply and communication with the configurable type module.
2	LED Indicator	This indicates status of the product.
3	Analog Output	This is a connector for analog output. (Use the 10-pin connector, included in the package).

Physical Dimensions

