CONPROSYS Series
Configurable Type Sensor Module
CPS-SSI-4P

This product is a configurable module to collect temperature data with a platinum resistance thermometer of Pt100, and operates along with the CPU module configurable type controller of our CONPROSYS series.

Temperature of up to four channels can be measured by one module.

* 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 October, 2018.

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

Features

Platinum resistance thermometer compliant with IEC/JIS standard
You can use the platinum resistance thermometer (Pt100, JPt100) that is comply with IEC/JIS standard, allowing connection with the platinum resistance thermometer through Three-wire or Four-wire.

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℃
The product is capable of operating in the temperature between -20 and + 60℃. 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.

Specification

Function specification

Item		CPS-SSI-4P
The number of channels		4
Platinum resistance thermometer acceptable		Pt100 (JIS C1604-1997, IEC 751 1983)
Wiring method		Three-wire or Four-wire
Maximum input voltage		4.5V
Measurable temperature range		-200 - +800℃
Precision	Three-wire	±0.3℃ *1
	Four-wire	±0.15℃ *1
Resolution		0.01℃
Conversion speed		170msec per one channel *2
Isolation method		Between platinum resistance thermometer input and power supply : Bus Isolation Voltage Resistance 500VDC Between platinum resistance thermometer input channels : non-isolated
Applicable wire		AWG28 - 16
LED		Status (Green, Red)
External circuit power supply		24VDC (±10%)
Current consumption		0.1A (Max.)
Physical dimensions (mm)		25.2(W)×94.7(D)×124.8(H) (No projection included)
Weight		200g
Installation method		Quick mounting on the 35mm DIN rail

*1   This indicates when ambient temperature is 25℃.   See below for precision in other ambient temperatures.
     Three-wire   : ±0.60℃ (-20℃ - 0℃), ±0.45℃ (-0℃ - 60℃)
     Four-wire   : ±0.35℃ (-20℃ - 0℃), ±0.25℃ (-0℃ - 60℃)
*2   The speed indicates conversion time only, not includes communication time.
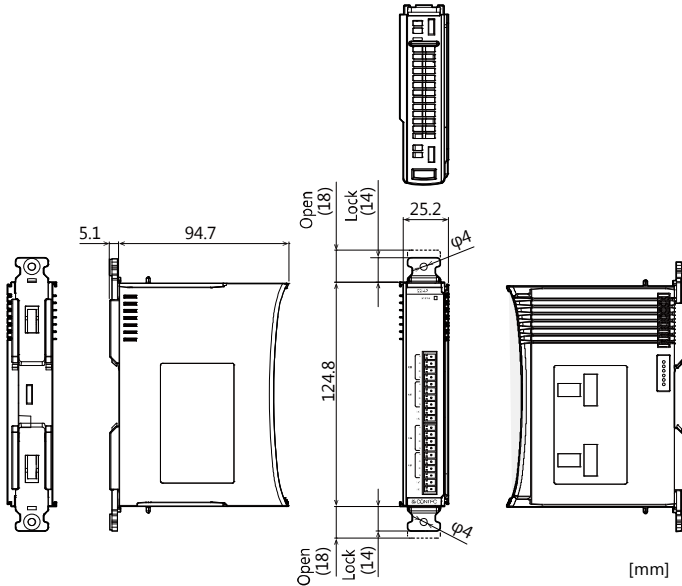
Caution
The maximum number of stacking modules operating along with the stack type controller is 16 and the total current consumption of the modules should be less than 3.3A.

Installation Environment Requirements

Item		CPS-SSI-4P
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 *3 /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), UL

*3   With the optional DIN rail fitting power supply : 10 - 55Hz (See the manual of optional power product for details)
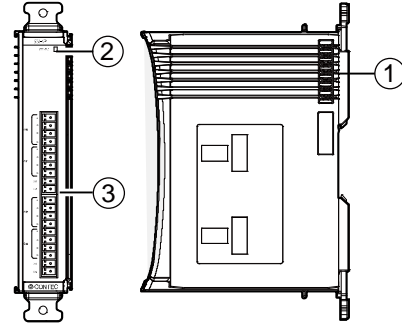
Physical Dimensions

[mm]

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-MCS341G-DS1-130	Configurable Type CPU module +3GWAN
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)

Packing List

Product [CPS-SSI-4P] ...1
Product guide ... 1
Warranty Certificate ...1
Serial Number Label ...1
10-pin Connector ...2

Nomenclature of Components

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	Temperature Sensor Input Connector	Connector for temperature measurement. Use the 10-pin connector, included in this package.