

# San Ace Controller

## Features

### Preventive maintenance of equipment (IoT functionality)

- Easy to connect to user's terminal devices. (Wireless LAN / wired LAN)
- Enables users to monitor the status of fans and sensors from remote terminal devices.
- Enables users to control the fan speed remotely via terminal devices.
- Detects outlier sensor measurements and sends alerts.
- Saves the fan's cumulative operating time and other fan measurement data to the cloud for later use.
- Prevents heat problems with user equipment, contributing to reducing maintenance time and costs.

### Low noise and high energy efficiency (Automatic control)

- Stores temperature, humidity, and air pressure measurements for automatic fan speed control based on the setting conditions.
- Makes fan cooling and ventilation more efficient, reducing noise and improving efficiency.

### Optimized fan settings (Manual control)

- Can connect and control a maximum of four fans, enabling different speed settings for individual fans.
- Optimizes the airflow and static pressure of individual fans in multi-fan systems.



Only the 9CT1-U001 model is cUL-certified.

## Specifications

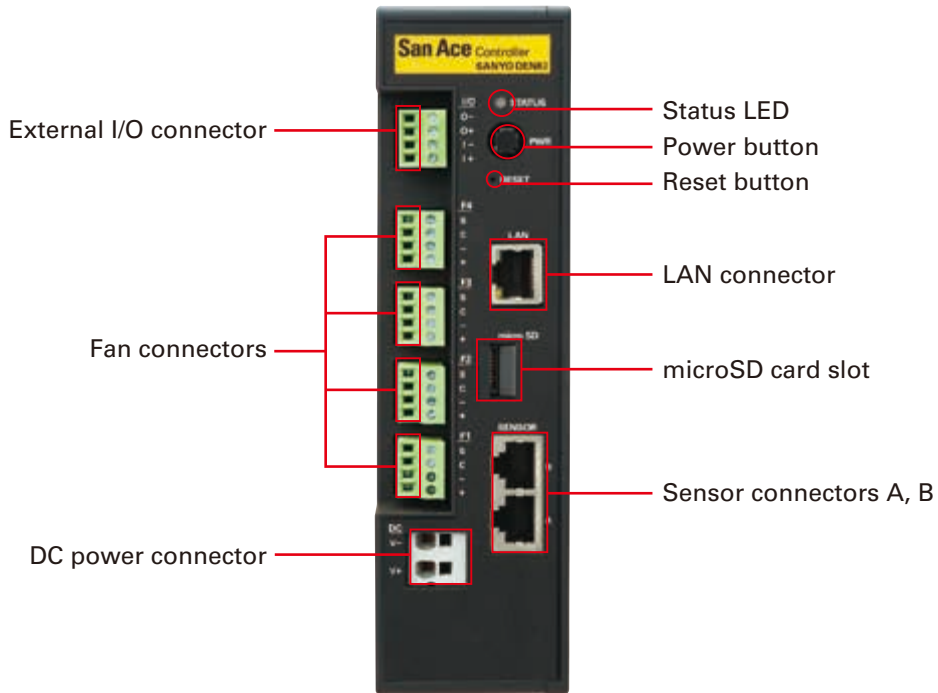
	With wireless LAN	Without wireless LAN	With wireless LAN, cUL certified
Model no.	9CT1-001	9CT1-002	9CT1-U001 <sup>(1)</sup>
Rated voltage [VDC]	12/24/48		12/24
Power consumption [W]	3.1 <sup>(2)</sup>		
Max. input power	970 W or less		64 W or less (At 12 VDC) 100 W or less (At 24 VDC)
Operating voltage range [VDC]	7 to 60		7 to 27.6
Operating temperature range [°C]	-20 to +70		
Control functions	Manual / automatic		
Control signal	PWM signal High-level voltage (V <sub>OH</sub> ): 3.3/5 V Frequency: 25 kHz		
Monitoring criteria	Fan speed, fan current, fan operation hours, sensor detection value, external input		
No. of connectable fans	Max. 4		
Max. fan connection terminal current (per terminal)	5 A		5 A (At 12 VDC) 4 A (At 24 VDC)
Max. output current (Total)	20 A		5 A (At 12 VDC) 4 A (At 24 VDC)
No. of connectable sensors	Max. 4		
Compatible sensors <sup>(3)</sup>	Temperature / humidity, air pressure, acceleration		
External I/O functions	Input	Photocoupler-isolated input, ON: 15 to 28.8 VDC, OFF: 0 to 5 VDC	
	Output	Photocoupler-isolated open-collector output, load voltage: 28.8 VDC or less, output current: 0.1 A or less	
Communication	Wireless	IEEE 802.11b/g/n, frequency: 2.4 GHz <sup>(4)</sup>	— IEEE 802.11b/g/n, frequency: 2.4 GHz <sup>(4)</sup>
	Wired	Ethernet 10BASE-T, 100BASE-TX	
Size [mm]	50 (W) × 135 (D) × 180 (H)		
Mass [g]	450		
Material	Casing: Plastic		

(1) Use a UL Class 2 power supply. (2) For use of this product alone, at 20°C ambient temperature

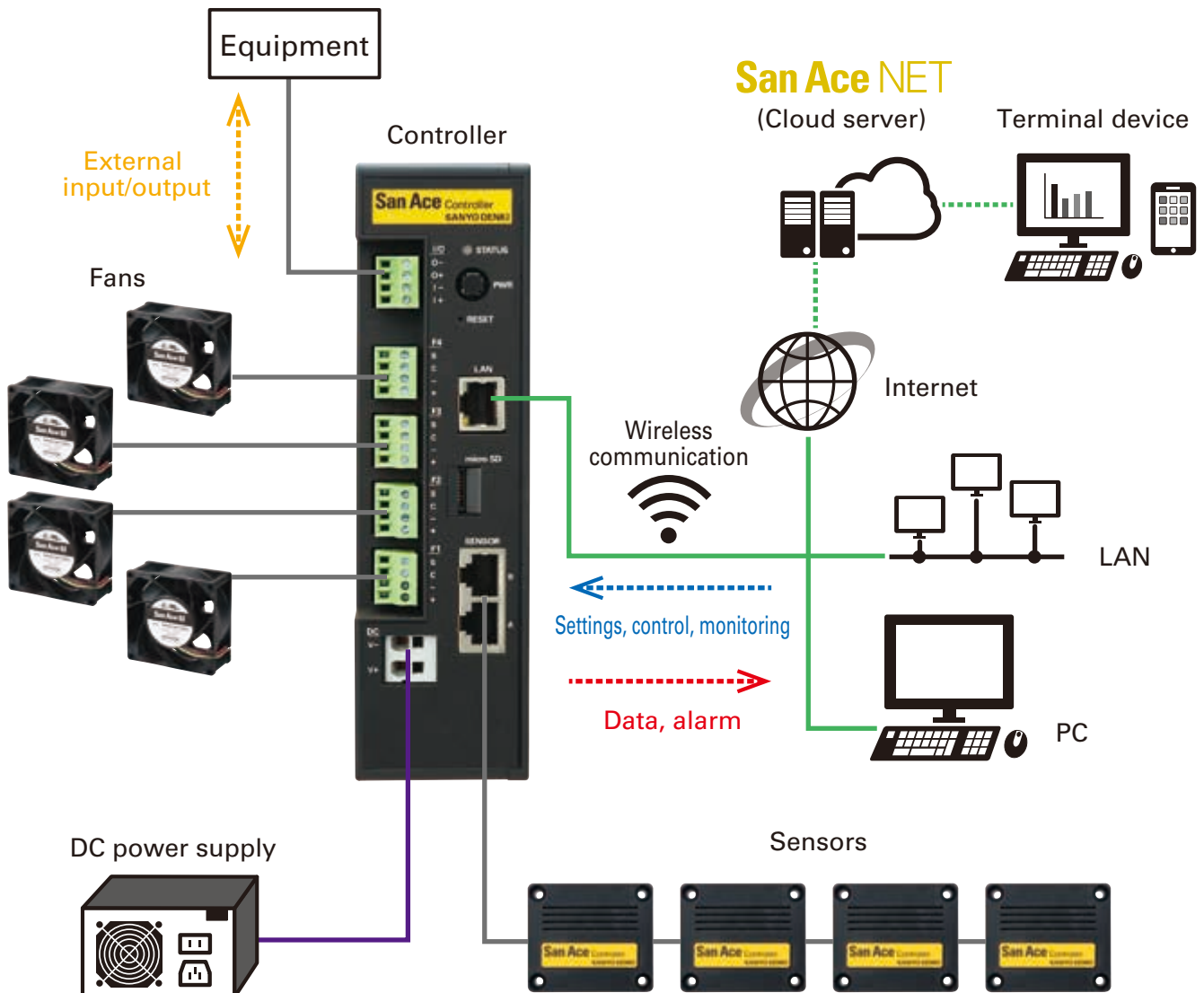
(3) Use our dedicated sensors (options). (4) Available channels: Ch. 1 to 11

# San Ace Controller

## Front View



## System Configuration

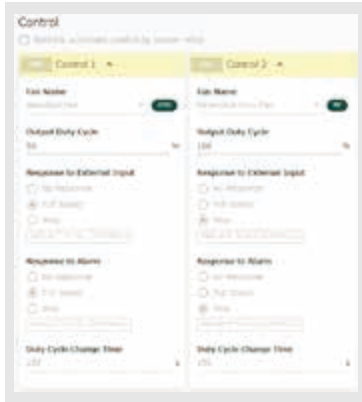


## Graphical User Interface (GUI) Screens

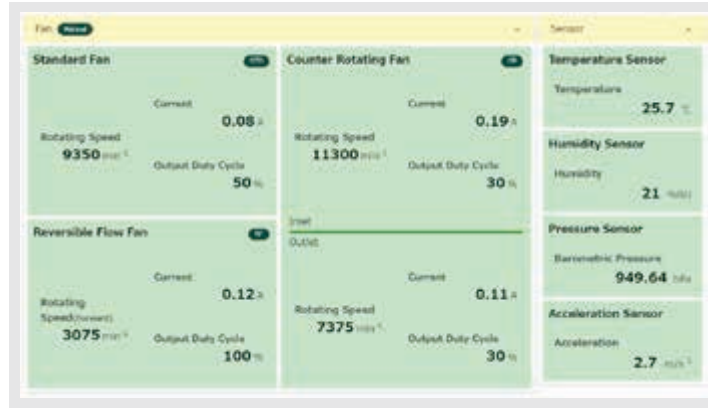
Settings, control, monitoring, and data download can be done through web browsers.

Sample screens

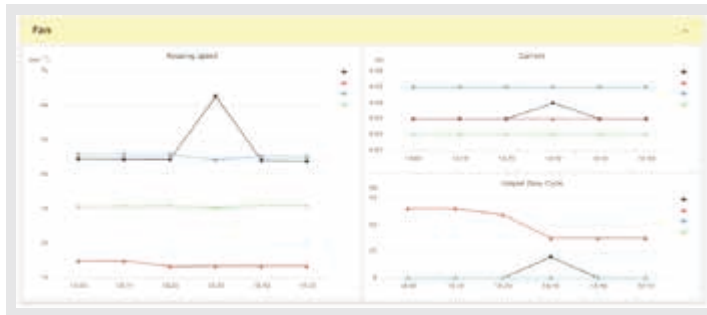
Control settings



Measurement data



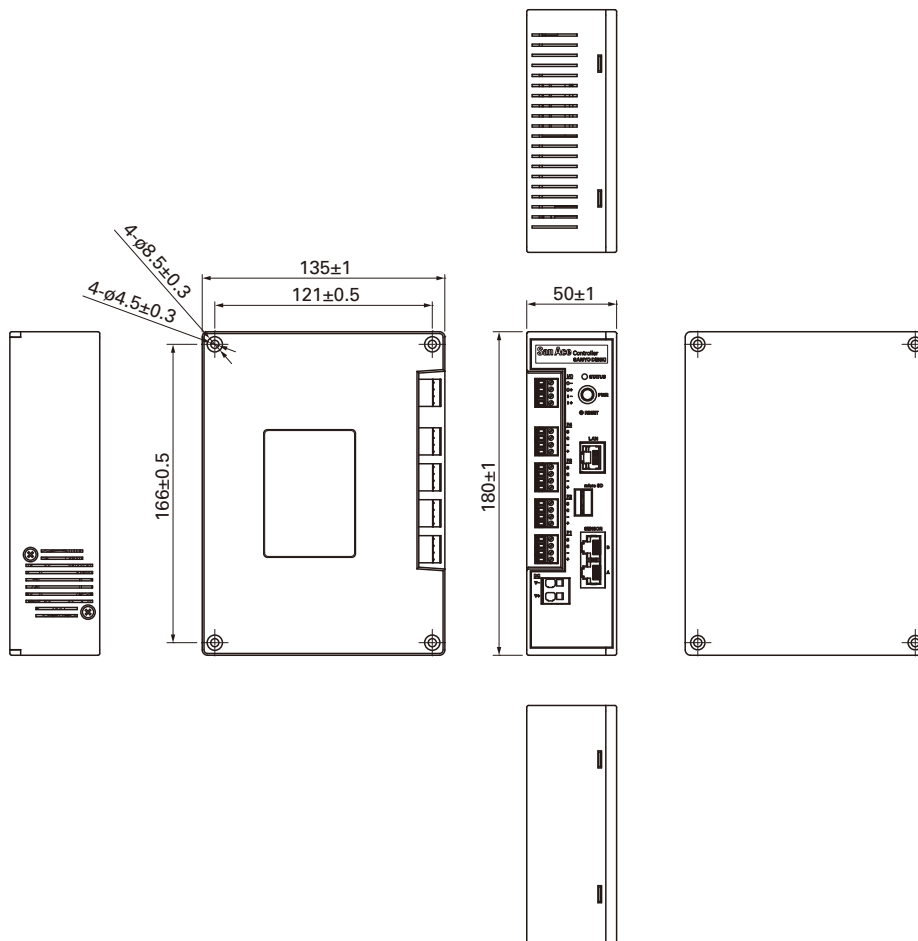
Graphs



Alarms

Alarm ID	Alarm Name	Alarm Status	Alarm Time
01	Fan Rotational Speed	OK	2024/10/26 08:08:08
02	Fan Rotational Speed	OK	---
03	Fan Rotational Speed	OK	---
04	Fan Rotational Speed	OK	---
05	Fan Current	OK	2024/10/26 08:08:08
06	Fan Current	OK	---
07	Fan Current	OK	---
08	Fan Current	OK	---
09	Fan Current	OK	---
10	Fan Pressure	OK	---
11	Fan Pressure	OK	---
12	Fan Pressure	OK	---
13	Fan Pressure	OK	---
14	Fan Pressure	OK	---

## Dimensions (unit: mm)



## Options

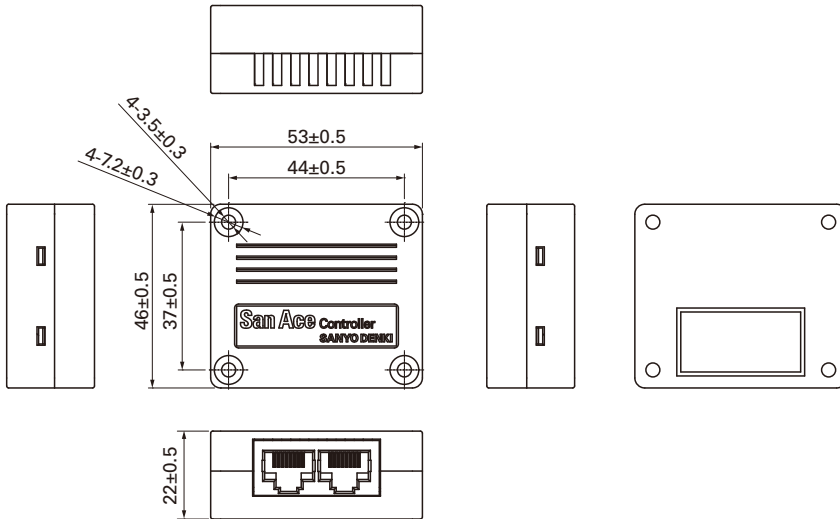
### Sensors



Sensor type	Temperature / Humidity sensor	Air pressure sensor	Accelerometer
Model no.	9CT1-T	9CT1-P	9CT1-A
Measurement range	Temperature: -20 to +70°C Humidity: 20 to 85% RH <sup>(1)</sup>	Air pressure: 800 to 1100 hPa	Acceleration: 0 to 60 m/s <sup>2</sup> <sup>(2)</sup>
Operating temperature range [°C]	-20 to +70		
Operating humidity range [% RH]	20 to 85 <sup>(1)</sup>		
Size [mm]	53 (W) × 46 (D) × 22 (H)		
Mass [g]	35		
Material	Casing: Plastic		

(1) Non-condensing (2) Total acceleration from three axes

### Dimensions (unit: mm)



### Precautions on use

- Before using the product, please read the included instructions manual carefully.

### Notice

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