

# Modular, Multi-Channel Monitoring System

## Ampcontrol Labs and Industrial Controllers

### CMC-SAE01 Series



### Product Detail

- Expandable - Single channel to multiple channels
- Microprocessor controlled, fully featured
- Wall mount or cards for rack mounting
- Designed for laboratories, industrial applications
- Alarm logging function with real time clock on board
- Built in large backlit display and built in piezo buzzer
- Built in programmable relays and analog output
- Smart self-test function
- Designed for easy installation and minimum maintenance during operation
- Highest performance at the lowest price

### Features

- + Wall mount or rack mount
- + Advanced icon based backlit graphical LCD display provides useful information at a glance
- + Programmable user access control anti-vandal logic
- + Common alarm relays and alarm logging
- + Simple user calibration
- + Analog output (4~20mA)
- + Built in alarm status LEDs and audible alarm
- + Each channel power can be completely turned off for fault finding and isolation
- + Completely Independent channels
- + Three programmable volt free relay output per channel which can be used to control field devices
- + User programmable settings through front key board
- + Modbus RS-485 communication for high level interface
- + Optional - Modbus TCP/IP over Ethernet
- + Optional remote display
- + Wide working voltage
- + Optional battery backup with monitored battery voltage and status indication
- + Alarm mute function

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### Application

- + Process control, is a universal controller as any field instrument can be connected that has 4-20mA output including temperature and humidity sensors
- + Environmental monitoring and control in food and beverage, pharmaceutical industries
- + Heating, Ventilation and Air Condition (HVAC) monitoring and control in residential and commercial buildings
- + HVAC monitoring recreational facilities and shopping centres
- + Environmental monitoring and control in libraries and other indoor places
- + Environmental monitoring and control in car repair workshops, loading docks and other places where air quality could possibly deteriorate

### Specifications

Modular Controller- CMC-SAE01 Series	
Sensor Range	Adjustable %LEL, ppm, % Vol, PPMm, LELm, $\mu\text{mol/mol}$ , mg/m <sup>3</sup>
Inputs	4 to 20mA analogue signal inputs, sourcing type, two or three wire
Pre-Alarms	Adjustable from below zero to full scale, can be activated on rising or falling level. Can be acknowledged and reset.
Low Alarms	Adjustable from below zero to full scale, can be activated on rising or falling level. Can be acknowledged and reset.
High Alarms	Adjustable from below zero to full scale, can be activated on rising or falling level. Can be acknowledged and reset.
Alarm Inhibit and Channel Isolate	Each alarm relay can be turned off or the card power can be completely switched off from the secured toggle switch.
Area Classification	General purpose
Real Time Clock	Programmable Hour, minute and second
Calendar Settings	Programmable Year, Month and date
Data Logging	Keeps history of last 999 activities including alarm, password protected deletion

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### Specifications cont.

Electrical	
Power Supply	Wall mount: 185VAC- 253VAC, 50Hz; Rack mount: 24VDC
Power Consumption	10W maximum
Voltage for Field Sensors	24VDC
Audible Alarm	65db – 115db @1m
Wiring Connections	Through wire terminals
Outputs	
Led Indication	Total four LEDs to show power, Fault, Alarm and Delay
Analog Output	One 4 – 20mA source type per channel 600Ω maximum impedance at 24VDC
Relay Outputs	Three relays per channel, any relay can be programmed for any set point and assigned to pre- alarm, Low alarm, High alarm or sensor fault or can be turned off. Programmable for on delay, off delay, latching or pulse output.
Relays	Three relays per channel, any relay can be programmed for any set point and assigned to pre- alarm, Low alarm, High alarm or sensor fault or can be turned off. Programmable for on delay, off delay, latching or pulse output.
Relay Contact Rating	2A @240VAC/24VDC (resistive load)
Beacon/Sounder	Built in, RED flashing light with alarm sounder 100db @1m
Communication Interface	Modbus RS485 interface
General Performance	
Operation Temperature	-10°C ~ +50°C
Operation Humidity	0~95%RH, non-condensing
Storage Conditions	0~40°C
Installation Method	Wall mount or in a standard 19" rack
Housing and IP Rating	Mounting base: Powder coated steel Remaining enclosure: PC/ABS fire-retardant plastic, IP54

### Model Guide

Model	Description
CMC-SAE01-W- XXX	Wall mount Controller with built in LCD display, built in buzzer, one analog 4-20mA output, Modbus RS485, data logging and three alarm relays - replace XXX for number of channels as per list below.
CMC-SAE01- R	19" rack mount card with built in LCD display, built in buzzer, one analog 4-20mA output, Modbus RS485, data logging and three alarm relays. Each card is sold separately. Maximum 10 cards per 19" rack can be fitted.

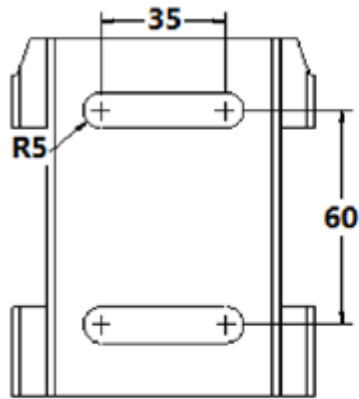
Number of Channels	Dimension (Width)	XXX Code
One	132mm	001
Two	132mm	002
Three	228mm	003
Four	228mm	004
n	48 x n +36	



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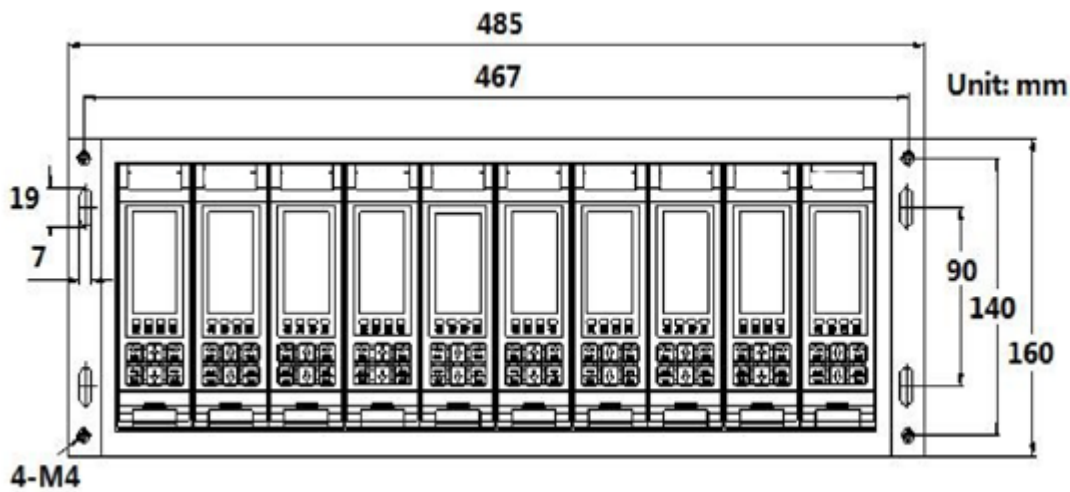
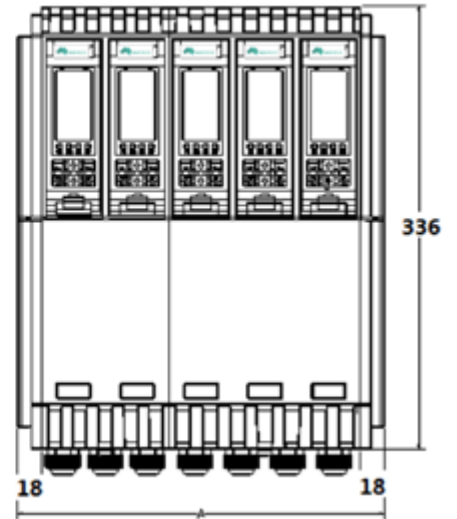
## Amcontrol Labs and Industrial Controllers

### Dimensions

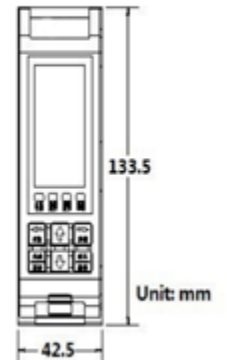


Unit: mm

Channels →	2	4	.....	n
Dimension-A (mm)	132	228	.....	48×n+36



Unit: mm



Unit: mm