

# DIGITAL HYGROSTAT AND THERMOSTAT CONTROLLER

MA-004-S



CMA-004-1



### Speciafication

		CMA-004-1	CMA-004-2
Power Supply		220V~±10% 50Hz	220V~±10% 50Hz
Power Consumption		2.5VA	
Display		7 Segment, Size 0.39 Inch, 3 Digit, (2 Row for CMA-004-2) (1 Row for CMA-004-1)	
		2 LED (Show Output)	
		2 LED (Show Alarm)	
		1 LED (Show Power Supply)	
		1 LED (Show Co	· · · · · ·
Temperature Range		-	0-80°C
Temperature Accuracy		-	±1°C
Relative Humidity Range		0-100% RH	
Relative Humidity Accuracy		± 5% RH	
Response Time		5 Sec	
Output	Relay	1 Relay NO/NC 10A, 250VAC	2 Relay NO/NC 10A, 250VAC
	Alarm	1 Alarm NO 3A, 250VAC	2 Alarm NO 3A, 250VAC
Communication	Protocol	MODBUS RTU	
	Baud Rate	9,600	
	Parity	None	
	Stop Bits	1 Bits	
	Data Bits	8 Bits	
	Maximum Support Node	128	
Ambient	Temperature	0°C to 60°C	
Operation	Humidity	85 % RH Non-Condensing	
Ambient	Temperature	-20°C †	o 80°C
Storage	Humidity	85 % RH Non-Condensing	
Protection Degree		IP20	
Installation		DIN RAIL	
Material		PC-ABS (UL94V-0)	
Size (mm.)		90 x 55 x 61.5	
Weight		166 g.	

### Description

• CMA-004-Series is a digital hygrostat and thermostat controller.

#### Measure Range

- Humidity : 1-100 % RH
- Temperature : 0.00-80.0°C
- Display by 7-Segment LED 3 Digits
- There are Relay Output and Alarm Output (CMA-004-1 amount 1 Relay, 1 Alarm and CMA-004-2 amount 2 Relay, 2 Alarm).
- Direct Control (Cooling) and Reverse Control (Heating) operation control functions.

•Comunication with computer via RS-485 MODBUS RTU Protocol

### **Operation**

CMA-004-Series is a digital hygrostat and thermostat controller classified by usage into 2 models follow :

CMA-004-1 Digital hygrostat Controller has probe inside measure range 1-100% RH There are 1 Relay Output NO/NC 10A 250VAC and 1 Alarm Output NO 3A, 250 VAC display by 7-Segment LED 3 Digits 2 rows

Output operation can choose 2 types of control functions are

Direct Control (Cooling) is Output which will operate when the measured value over than Setpoint (SP) value and Output will stop when the measured value is less than Setpoint (SP) (reference from the operation graph) picture 2

Reverse Control (Heating) is the Output that will operate when the measured value is less than Setpoint (SP) value (reference from the operation graph) picture 2

CMA-004-Series can communicate with the computer to save data or Monitor via RS-485 MODBUS RTU Protocol

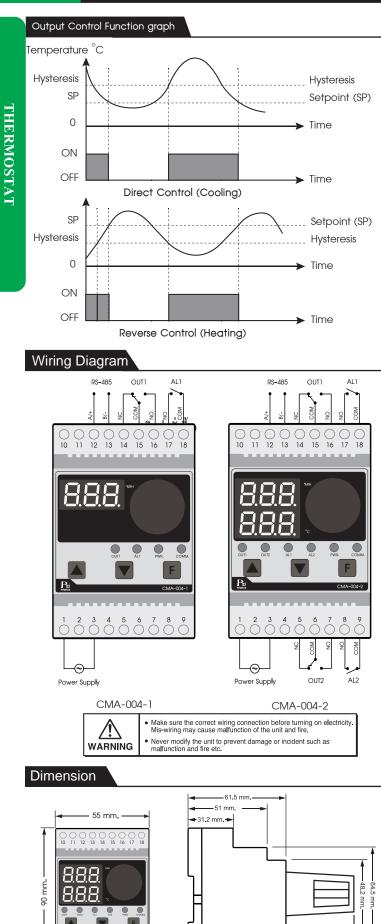
Alarm operation is Absolute type by the value used to switch the operation of the Alarm Alarm operation will separate from Setpoint value(SP) or we can define this is the relay switch phase by not including SP value to calculate classified into 4 models such as High-Low Alarm, High Alarm, Low Alarm, and High-Low Alarm.

# Group 30

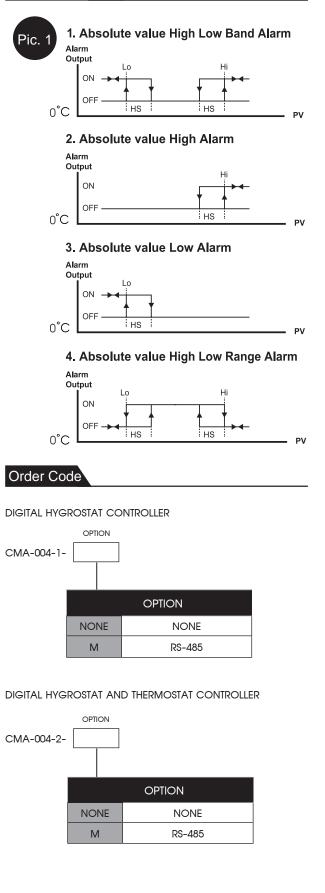
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# CMA-004-SERIES

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## Alarm Function



25 mm.

2 3 4 5 6 7 8 9