CM-005DN

DIGITAL MONITOR FOR HEATER BREAK ALARM

Primus
User Manual

TECHNICAL SPECIFICATION

Power Supply		220 VAC ±15% 50/60 Hz
		24 VDC/VAC ±15%
Power Consumption		1 VA
Display	7-Segment	Size 0.39 inch 1 Digit, for Heater Index
		Size 0.56 inch 3 Digit, 1 Decimal Point
	Heater Status	8 LED
	Alam Relay	1 LED
	Communication	1 LED (Blink when communication success)
Communication	Protocol	Modbus RTU
	Baud Rate	4800, 9600, 19200, 38400 bps
	Parity	None, Odd, Even
	Stop Bits	1, 2
	Data Bits	8 Bits
	Maximum Support Node	2 Module of CM-005N-4CH
Ambient Operation	Temperature	-10°C to 60°C
	Humidity	<85% RH Non-Condensing
Ambient Storage	Temperature	-20°C to 80°C
	Humidity	<85% RH Non-Condensing
Protection Degree	Front Protection Rating	IP52
	Case Protection Rating	IP30
Material		ABS-V0
Installation		DIN RAIL Mounting
Size		48 x 96 x 80 mm.
Weight		200 g.

DESCRIPTION

- CM-005DN is device for display current value and Heater status by connect with CM-005N-4CH.

- Can connect with CM-005N-4CH maximum 2 device via Monitor panel to show heater current maximum 8 devices.

- LED show status of each alarm can set Heater Break current cutting and has Auto/Manual system to see Heater status.

- Show heater current by red 7-Segment 3 digits size 0.56 inch and show Heater position by red 7- Segment 1 digit size 0.39 inch.

- Decimal point 1 position.

GENERAL DESCRIPTION

When user connects CM-005DN with Monitor panel of CM-005N-4CH and if there are Heater Break or Heater Short (Heater operate (current flow) all the time because solid state relay relay has short circuit or Contact surface of magnetic arc and stick together during Temperature do not operate) it made LED of other Heater of CM-005DN will ON or flash with alarm and display letters Hb (Heater Break) or HS (Heater Short) at 7-Segment.

CM-005DN can show Heater current value each device by 7-Segment. First digit will show position of Heater (H1-H8) and next digit will show current value of Heater and display can choose and show result can choose both Manual (Press choose Heater (H1-H8) position for see heater current at the position) and Auto mode (show heater current circulating all the time)

CM-005DN can set heater current of each heater if measured value lower than Setpoint value. LED of heater will ON with Alarm and Display will show letter Hb (Heatbreak) at 7-Segment which made Alarm relay output of CM-005N-4CH operate by user can see current value during Alarm happened by pressing Reset(C) and can command LED and Alarm stop operate by pressing Reset (C) hold for 3 seconds.
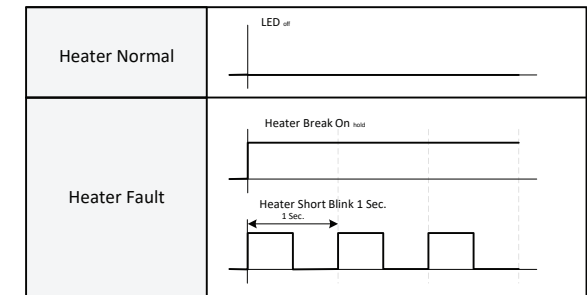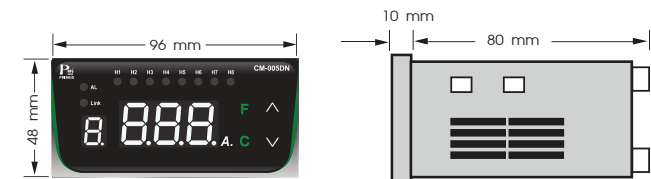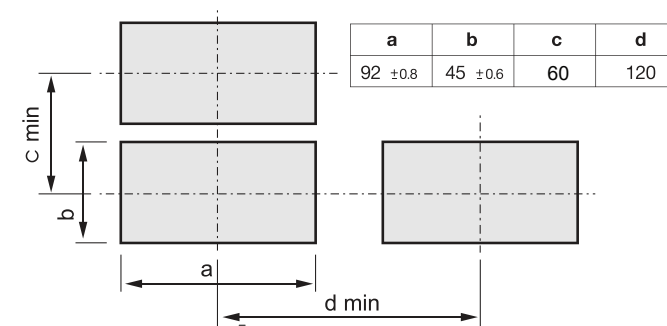
Operation graph

Heater Normal	LED off
Heater Fault	Heater Break On hold
	Heater Short Blink 1 Sec.

Fig1. LED Status operation

DIMENSION

10 mm
96 mm
80 mm
48 mm

CUTTING PANEL

a	b	c	d
92 ±0.8	45 ±0.6	60	120

C min
b
a
d min

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■ INSTALLATION

■ WIRING DIAGRAM

CM-005N-4CH
Monitor Panel / RS-485
D- D+

CM-005N-4CH
Monitor Panel / RS-485
D- D+

Power Supply
220VAC ±15%
24VDC/VAC ±15%

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

D- D+
MonitorPanel

CM-005DN

| 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
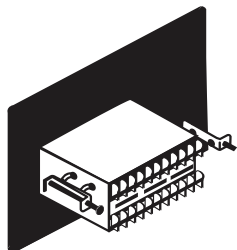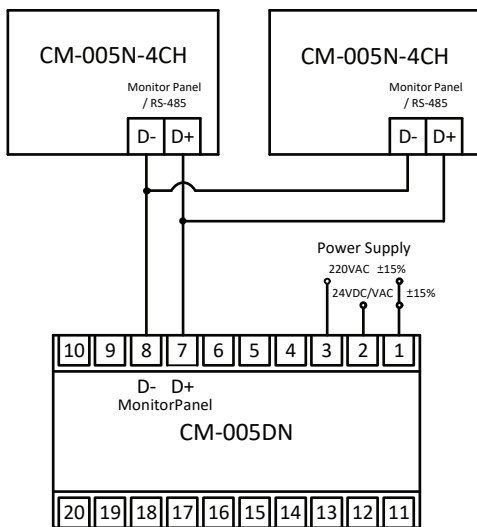
■ ORDERING CODE

CM-005DN-

Code	Power Supply
220	220 VAC ±15%
24	24 VDC/VAC ±15%

Main Display

`1 2.0`

Press Ⓐ or Ⓥ for show current of each heater.
Press Ⓕ hold for 3 seconds to enter setting menu.
Press Ⓒ to see current value during alarm or press and hold for 3 seconds to Reset Alarm.

Press Ⓕ hold for 3 second back to main screen or do not press button for 10 second it will back to main page automatic.

1. Heater Break 1 Setting

`Hb 1` `0.6`

Press Ⓐ or Ⓥ for setting Heater Break1 0.1-51.0 A
Press Ⓕ for Save and go to next Menu
Press Ⓒ to cancle then exit from setting.

2. Heater Break 2 Setting

`Hb2` `0.6`

Press Ⓐ or Ⓥ to setting Heater Breaker2 0.1-51.0A
Press Ⓕ to save and go next menu.
Press Ⓒ to cancle then exit from setting.

3. Heater Break 3 Setting

`Hb3` `0.6`

Press Ⓐ or Ⓥ to setting Heater Break3 0.1-51.0A.
Press Ⓕ to save and go next menu.
Press Ⓒ to cancle them exit from setting.

4. Heater Break 4 Setting

`Hb4` `0.6`

Press Ⓐ or Ⓥ to setting Heater Break4 0.1-51.0A.
Press Ⓕ to save and go next menu.
Press Ⓒ to cancle them exit from setting.

5. Heater Break 5 Setting

`Hb5` `0.6`

Press Ⓐ or Ⓥ to setting Heater Break5 0.1-51.0A.
Press Ⓕ to save and go next menu.
Press Ⓒ to cancle them exit from setting.

6. Heater Break 6 Setting

`Hb6` `0.6`

Press Ⓐ or Ⓥ to setting Heater Break6 0.1-51.0A.
Press Ⓕ to save and go next menu.
Press Ⓒ to cancle them exit from setting.

7. Heater Break 7 Setting

`Hb7` `0.6`

Press Ⓐ or Ⓥ to setting Heater Break7 0.1-51.0A.
Press Ⓕ to save and go next menu.
Press Ⓒ to cancle them exit from setting.

** Remark When show `noC` (No Cinnect) means CM-005DN do not connect with CM-005N-4CH.
When show `Stb` (Standy) means CM-005DN connected and wait to receive current value from CM-005N-4CH shows or display value after press RESET.

8. Heater Break 8 Setting

`Hb8` `0.6`

Press Ⓐ or Ⓥ for setting Heater Break8 0.1-51.0 A
Press Ⓕ for Save and go to next Menu
Press Ⓒ to cancle then exit from setting.

9. Page Auto Setting

`Auto` `0`

Press Ⓐ or Ⓥ for setting 0, 10, 30, 60 seconds
Press Ⓕ for Save and go to next Menu
Press Ⓒ to cancle then exit from setting.

** Remark In case setting to be 0 second.
Press Ⓐ to show Heater value all 8 channel.
Press Ⓥ to show Heater value from heater is connecting.

10. Address 1 Setting

`Adr1` `1`

Press Ⓐ or Ⓥ for setting can set value 1-127.
Press Ⓕ to save and go to next menu.
Press Ⓒ to cancle and exit from setting

11. Address 2 Setting

`Adr2` `2`

Press Ⓐ or Ⓥ for setting can set value 1-127.
Press Ⓕ to save and go to next menu.
Press Ⓒ to cancle and exit from setting

12. Baud Rate Setting

`bAud` `9.6`

Press Ⓐ or Ⓥ for setting 4800, 9600, 19200, 38400 bps
Press Ⓕ for save and go to next manu.
Press Ⓒ for cancel and exit from setting menu.

13. Parity Setting

`PAr` `nOnE`

Press Ⓐ or Ⓥ for setting None, Odd, Even
Press Ⓕ to save and go to next menu.
Press Ⓒ to cancel then exit from setting menu.

14. Stop Bit Setting

`StoP` `1`

Press Ⓐ or Ⓥ for setting can set value 1-2
Press Ⓕ to save and go to next menu.
Press Ⓒ to cancle and exit from setting

CM-005DN