



CM-002N (Standard Size)



DCM-002N (Mini Size)

## Description

- Digital Amp Meter (True RMS) / Mini Digital Amp Meter (True RMS): CM-002N / DCM-002N  
These devices are digital meters designed to measure and display electrical current values. They support AC current (True RMS) at 50–60 Hz and DC current.
- AC current measurement range: 0–5 A (direct), 0–9,999 A (with 5 A CT).
- DC current measurement range: 0–75 mVDC / 0–150 mVDC for R-shunt.
- 1 Alarm Relay Output with 4 selectable alarm functions:
  - Absolute value high/low band alarm
  - Absolute value high alarm
  - Absolute value low alarm
  - Absolute value high/low range alarm
- CT ratio adjustable from 1 to 2,000 (10,000/5 A)
- Displayed by a 4-digit 7-segment display, size 0.56 inch (for CM-002N) and 0.39 inch.
- Available in two sizes: CM-002N (48 × 96 mm) and DCM-002N (35.25 × 79.6 mm).

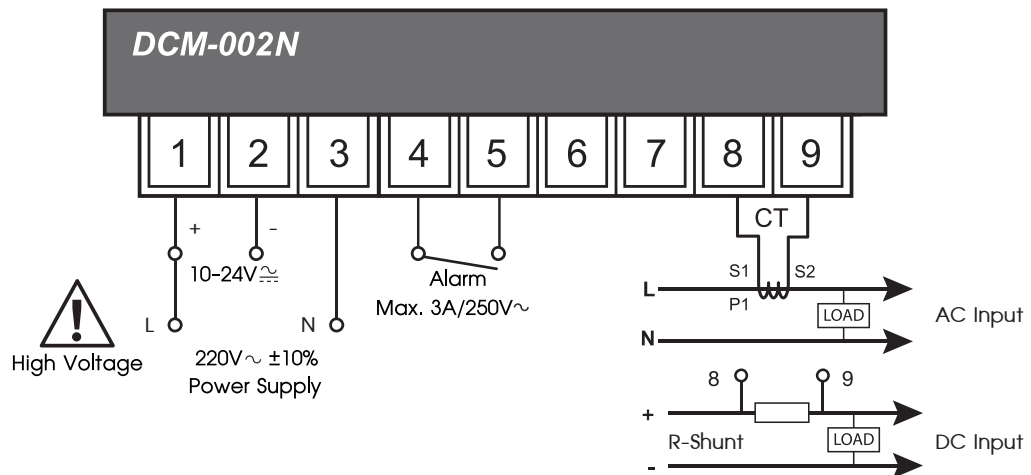
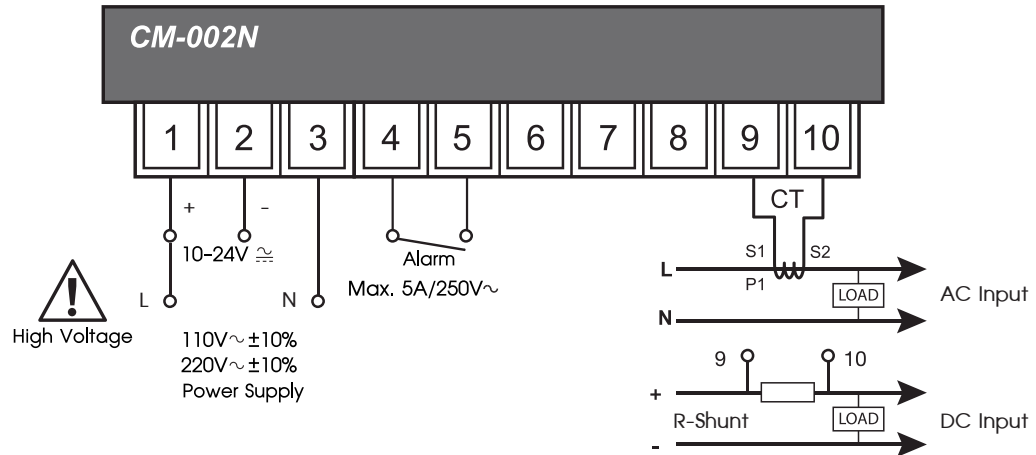
## Operation

CM-002N/DCM-002N is a device used to measure and display electrical current. For alternating current (AC), it can be connected directly with a measuring range of 0–5 A, or used together with a current transformer (CT) to measure currents up to 0–9999 A. For direct current (DC), it can be connected with an R-shunt to measure current in the system, with selectable measuring ranges of 0–75 mV or 0–150 mV in a single unit. In addition, the input and display scaling can be programmed as required; for example, when selecting a 0–75 mV input, it can be programmed to accept 0–150 mV and display values from 0–9999. The unit is equipped with one alarm relay output, providing four selectable alarm functions for controlling or disconnecting loads as needed.

## Specification

| Model.            |                         |                  | CM-002N                | DCM-002N            |
|-------------------|-------------------------|------------------|------------------------|---------------------|
| Power Supply      |                         |                  | 220VAC ±10% 50-60Hz    |                     |
|                   |                         |                  | 110VAC ±10% 50-60Hz    | -                   |
|                   |                         |                  | 10-24VAC/VDC           |                     |
| Power Consumption |                         |                  | 3VA                    | 2.5VA               |
| Display           |                         |                  | 7 Segment, 4 Digit     |                     |
|                   |                         |                  | Size 0.56 Inch         | Size 0.39 Inch      |
| Input             | AC                      | Current (Direct) | 0 to 5 Amp             |                     |
|                   |                         | Current With CT  | 0 to 9999 Amp          |                     |
|                   |                         | CTRatio          | 1 to 2000              |                     |
|                   |                         | Input Impedance  | < 1 Ohm                |                     |
|                   |                         | Accuracy         | 0.5% of Full Scale     |                     |
|                   | DC                      | Range            | 0-75 mVDC              |                     |
|                   |                         |                  | 0-150 mVDC             |                     |
|                   |                         | Setting Scale    | 0-9999                 |                     |
|                   |                         | Input Impedance  | < 1 MOhm               |                     |
|                   |                         | Accuracy         | ± 0.5% of Full Scale   |                     |
| Output            |                         |                  | 1 Alarm 5A/250VAC      | 1 Alarm 3A/250VAC   |
| 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                   |                     |
| Installation      |                         |                  | Panel, Mounting        |                     |
| Material          |                         |                  | ABS-V0                 |                     |
| Size (mm.)        |                         |                  | 48 x 96 x 80           | 35.25 x 79.6 x 69.6 |
| Weight (kg.)      |                         |                  | 225                    | 150                 |

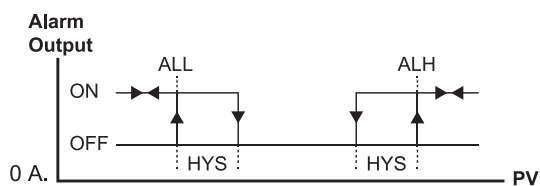
Wiring Diagram



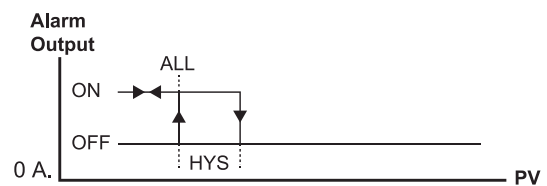
- Make sure the correct wiring connection before turning on electricity. Mis-wiring may cause malfunction of the unit and fire.
- Never modify the unit to prevent damage or incident such as malfunction and fire etc.

ALARM FUNCTION

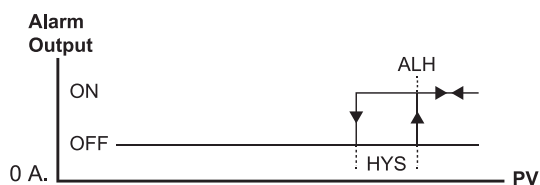
1. Absolute value High Low Band Alarm



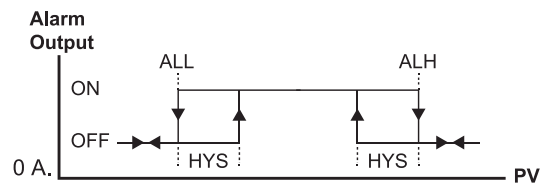
3. Absolute value Low Alarm



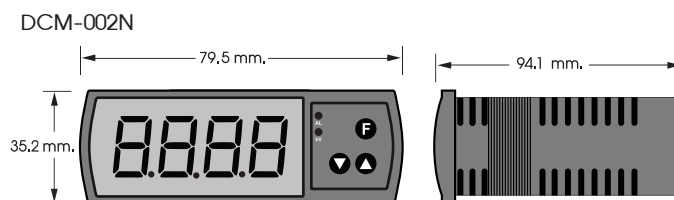
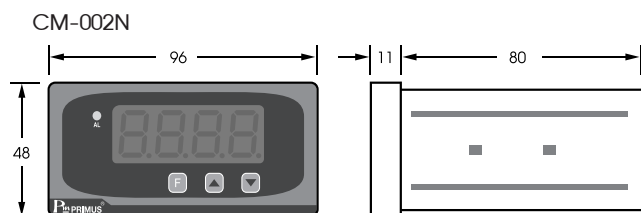
2. Absolute value High Alarm



4. Absolute value High Low Range Alarm

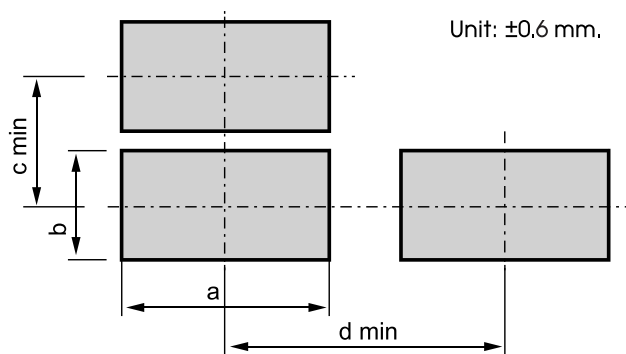


## Dimension

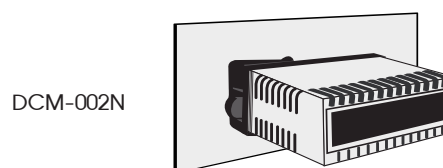
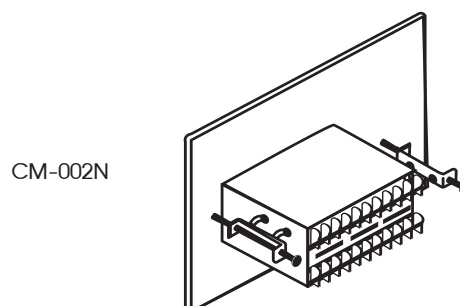


## Channel Size

| Model    | a    | b    | c    | d     |
|----------|------|------|------|-------|
| CM-002N  | 92.0 | 45.5 | 54.5 | 113.3 |
| DCM-002N | 70.5 | 29.5 | 47.8 | 94.8  |



## Installation



## Ordering Code

| CM-002N- | Input    | -    | Power Supply |
|----------|----------|------|--------------|
|          |          |      |              |
| Input    |          | Code | Power Supply |
| 1        | AC Input | 024  | 10-24VAC/VDC |
| 2        | DC Input | 110  | 110VAC       |
|          |          | 220  | 220VAC       |

| DCM-002N- | Input    | -    | Power Supply |
|-----------|----------|------|--------------|
|           |          |      |              |
| Input     |          | Code | Power Supply |
| 1         | AC Input | 024  | 10-24VAC/VDC |
| 2         | DC Input | 220  | 220VAC       |