

MA4N

Multi timer

- Time unit 4 kinds
- Multi range 4 kinds
- Reset, start, prohibited input
- Output operation mode 6 kinds



Specification

| Model | MA4N-A | MA4N-B | MA4N-C |
|--------------------------|---|--|--|
| Power Supply voltage | | 24 - 240 V a.c. / d.c. 50 - 60 Hz | |
| Voltage regulation | | ± 10 % from supply voltage | |
| Power consumption | | 5.3 VA (240 V a.c.), 2.5 W (240 V d.c.) | |
| Resetting time | | 0.1 sec max | |
| Min Signal length | START Input INHIBIT Input RESET Input | 20 ms min | - |
| Input condition | START Input INHIBIT Input RESET Input | ■ Non voltage Input ■ Impedance in a short circuit : 2 kΩ max ■ Residual voltage in a short circuit : 0.7 V d.c. max ■ Impedance in open : 100 kΩ min | - |
| Output | Time limit 2c | Time limit 1c, Instantaneous 1c | Time limit 2c Time limit 1c Instantaneous 1c |
| | | ■ NO : 10 A 125 V a.c., 5 A 250 V a.c., 5 A 30 V d.c. ■ NC : 3 A 125 V a.c., 2 A 250 V a.c., 1 A 30 V d.c. | |
| Setting error | | ± 5 % ± 0.05 sec max | |
| Repeat error | | ± 0.3 % max | |
| Temperature error | | ± 2 % max | |
| Insulation resistance | | 100 MΩ min (Base on 500 V d.c.) | |
| Dielectric strength | | 2000 V a.c. 50 / 60 Hz for 1 min | |
| Impulse voltage | | ± 2000 V max | |
| Vibration | Mechanical durability Malfunction durability | 10 - 55 Hz double amplitude 0.75 mm 10 - 55 Hz double amplitude 0.5 mm | |
| Shock | Mechanical durability Malfunction durability | 300 m/s ² (Approx. 30 G) 100 m/s ² (Approx. 10 G) | |
| Life expectancy | Mechanical Electrical | Over 10 million operations (Open & Short frequency : 180 / min) Over 100,000 (250 V a.c. 3 A load resistance) | |
| Terminal type | | Socket type 11 Pin | Socket type 8 Pin |
| Ambient temperature | | -10 ~ 55 °C (With no condensation) | |
| Conservation temperature | | -20 ~ 65 °C (With no condensation) | |
| Ambient humidity | | 35 ~ 85 % R.H. | |
| Weight | | About 100 g (Including fixing bracket) | |
| Certification | | | |

Suffix code

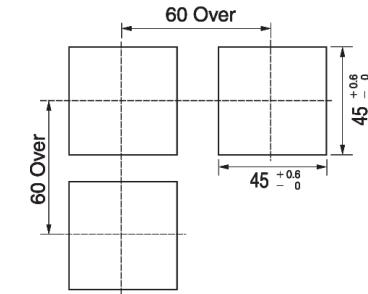
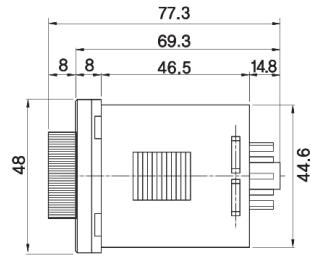
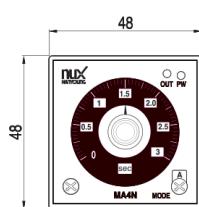
| Model | Code | Description |
|------------------|--------------------------|---------------------------------|
| MA4N- | <input type="checkbox"/> | Analog multi timer (48 × 48 mm) |
| Device selection | A | 2c (Time limit) * 11 pin type |

| | |
|---------------|---|
| B | 2c (Time limit + Instantaneous) * 11 pin type |
| C | 2c (Time limit), 2c (Time limit + Instantaneous) *Processed by mode selection (8 pin type) |
| Power voltage | 24 - 240 V a.c / d.c (50 - 60 Hz) Dual usage |

Dimension & Panel cutout

[Unit : mm]

Dimension

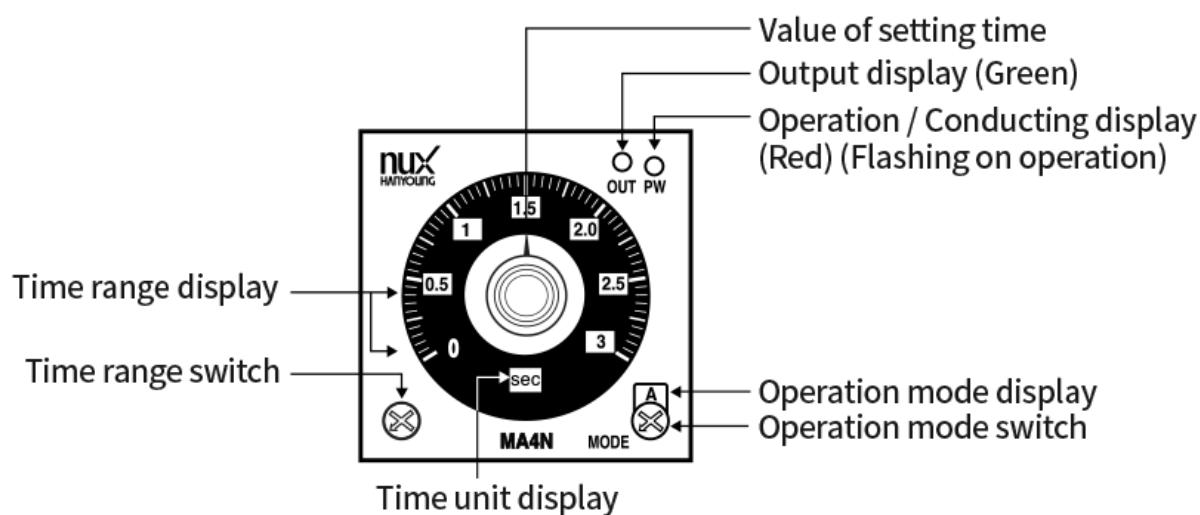


Panel cutout

Time range

| | Time unit | sec | min | hrs | x10h |
|---------------|-----------|-----|------------|-----|----------|
| Max time | | | | | |
| Setting range | 1.2 | | 0.12 ~ 1.2 | | 1.2 ~ 12 |
| | 3 | | 0.3 ~ 3 | | 3 ~ 30 |
| | 12 | | 1.2 ~ 12 | | 12 ~ 120 |
| | 30 | | 3 ~ 30 | | 30 ~ 300 |

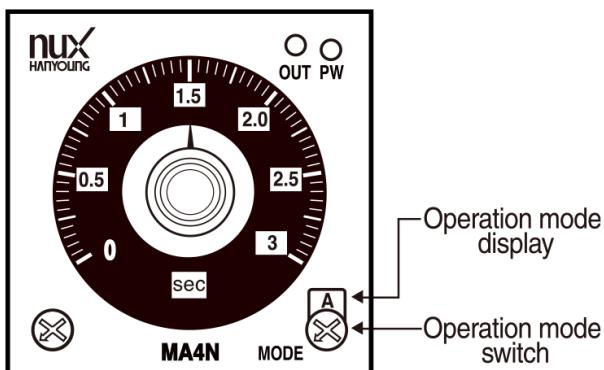
Part name



External connection

Please select operation mode by turning the operation mode switch that is in front of panel.

User can select 6 types of operation modes, and operation mode is displayed as A, B, C, D, E, F or A1, B1, C1, D1, E1, F1.



- **Operation mode display**

■ MA4N-A, MA4N-B TYPE

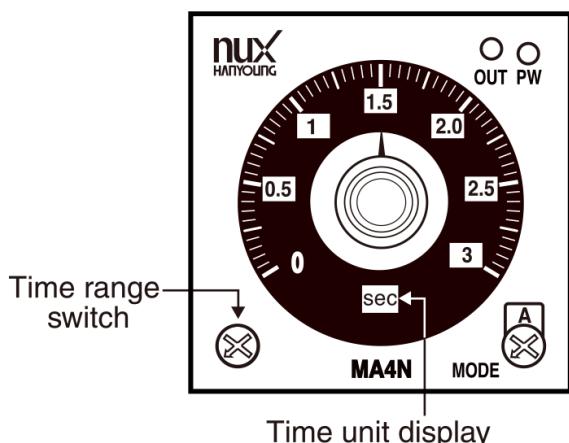
| MODE | Function of operation |
|------|-----------------------|
| A | ON DELAY |
| B | FLICKER OFF START |
| C | INTERVAL |
| D | SIGNAL ON/OFF DELAY |
| E | SIGNAL OFF DELAY |
| F | FLICKER ON START |

■ MA4N-C TYPE

| MODE | Function of operation |
|------|-----------------------|
| A1 | ON DELAY |
| B1 | ON DELAY1 |
| C1 | ON DELAY2 |
| D1 | FLICKER OFF START |
| E1 | FLICKER ON START |
| F1 | INTERVAL |

Selection of time unit

- Please select time by turning the Time range switch that is in front of the panel. User can select 16 types of time ranges, and it is displayed as sec, min, hrs, 10h

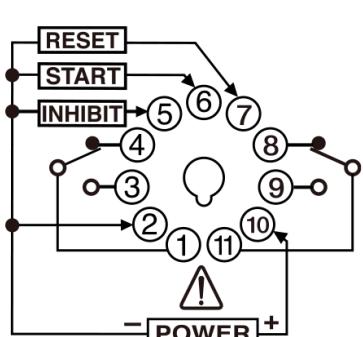


■ Time unit display

| Time unit | ime range |
|--------------------|---------------------------------|
| sec, min, hrs, 10h | 0, 0.2, 0.4, 0.6, 0.8, 1.0, 1.2 |
| | 0, 0.5, 1, 1.5, 2, 2.5, 3 |
| | 0, 2, 4, 6, 8, 10, 12 |
| | 0, 5, 10, 15, 20, 25, 30 |

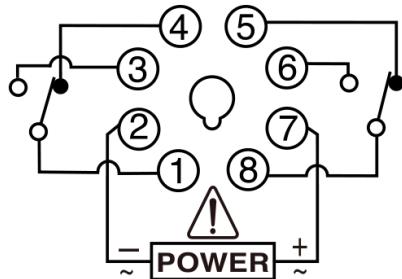
Connection diagram

■ MA4N-A / MA4N-B



- MA4N-A : Two relay work as Time limit
- MA4N-B : The relay connected with ①, ③, ④ work as instantaneous operation and the other relays work as time limit.
- Please refer to Timing charts for working of relays

■ MA4N-C



- Two relays in Mode A1 and D1 work as Time limit.
- The relays in Mode B1, C1, E1, F1 connected with ①, ③, ④ work as instantaneous operation, and other relays work as time limit.
- MA4N-C : According to timing charts, relays works as Time limit or Instantaneous.
- Please refer to Timing charts for working of relays.

