

# Analog Timer MA4N

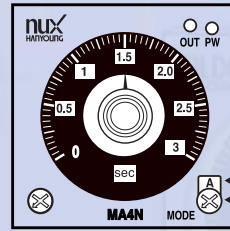


- Up grade version of MA4 model
- Apply convenient time set-up mode
- Free power voltages (24-240 V a.c 50/60, 24-240 V d.c)
- Various Time ranges (Total 16 time ranges)
- Various operation charts (Total 6 operation charts)
- A type (Time limit contact 2c), B type (Time limit contact 1c, Instantaneous contact 1c), C type (Time limit contact 2c or Tim limit contact 1c, Instantaneous contact 1c)
- Use Power LED to display status of time process

## Time range

Max. Time	Time Unit	sec	min	hrs	X10 h
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

## Selection of Time unit & Operation mode



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

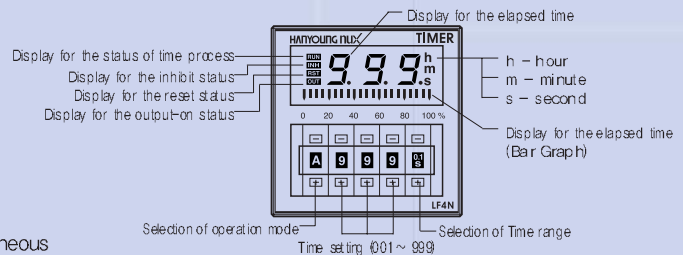
MA4N - C TYPE

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



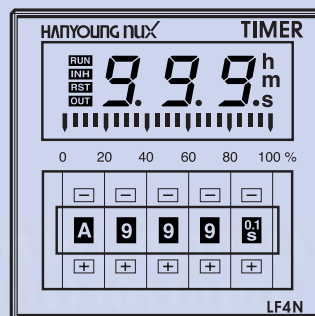
# Digital Timer LF4N

- LCD Display
- Up grade version of NF4 model
- Apply convenient time set-up mode
- Free power voltages (24-240 V a.c 50/60, 24-240 V d.c)
- Various Time ranges (Total 10 time ranges)
- Various operation charts (Total 10 operation charts)
- A type (Time limit contact 1C), B type (Time limit contact 1C, Instantaneous contact 1c), C type Time limit contact 2c), D type (Time limit contact 1c)



## Function of operation chart

MODE	FUNCTION
A	SIGNAL ON-DELAY
B	FLICKER ON START
C	SIGNAL ON/OFF DELAY
D	SIGNAL OFF DELAY
E	INTERVAL
F	ONE SHOT & FLICKER
G	INTEGRATION
H	INTERVAL DELAY
I	FLICKER ONE-SHOT
J	POWER ON-START




## Function of Time units

Time unit	Time range
.01 s	0.01 s ~ 9.99 s
0.1 s	0.1 s ~ 99.9 s
s	1 s ~ 999 s
0.1 m	0.1 m ~ 99.9 m
m	1 m ~ 999 m
0.1 h	0.1 h ~ 99.9 h
h	1 h ~ 999 h
10 h	10 h ~ 9990 h
S	0 m 01 s ~ 9 m 59 s
M	0 h 01 m ~ 9 h 59 m

## LF4N series LCD Timers

### Specifications

Model		LF4N-A	LF4N-B	LF4N-C	LF4N-D
Appearance					
W×H×D (mm)		48.0×48.0×69.5			
Input	Input signal	Reset, start, inhibit. ※LF4N-A and LF4N-D only.			
	Non-voltage input	Paragraph level (during transistor ON): residual voltage max. 0.7 V d.c., impedance max. 2 kΩ			
		Open level (during transistor OFF): impedance min. 100 kΩ			
Contact input	Use a contact that can open and close 5 V d.c., 2 μA sufficiently				
Performance	Repetition accuracy	Max. ±0.01 % ±0.05 s of set value (power start), max. ±0.005 % ±0.03 s of set value (start signal)			
	Return time	Max. 0.1 s			
	Noise immunity	Square wave noise by noise simulator (1 μs pulse width), ±2 kV (between operation power terminals)			
	Insulation resistance	Min. 100 MΩ (500 V d.c.) conductive terminal - unfilled metal			
	Dielectric strength	2000 V a.c. 60 Hz for 1 min (different live part terminals)			
Function and output	Output operation mode	Operating mode 10 types (selection by front digital switch) but LF4N-B, LF4N-C (A mode: POWER ON delay fixed)			
	Time display method	Set by internal UP / Down selection switch			
	Time range	Time range 10 types (selection by front digital switch)			
	Set value recognition	Constant recognition (setting can be changed even during energization)			
	Control output	SPDT (1c), 250 V a.c. 3A, resistive load			
		Time limit 1c	Time limit 1c, instantaneous 1c	Time limit 1c × 2	Time limit 1c
Applicable socket	8-pin socket			11-pin socket	
Power voltage		24 - 240 V a.c./d.c. 50/60 Hz			
Voltage fluctuation rate		±10% of power voltage			
Power consumption	240 V a.c.	Approx. 2.5 VA	Approx. 2.9 VA		Approx. 2.5 VA
	240 V d.c.	Approx. 1.5 W	Approx. 2.1 W		Approx. 1.5 W
Ambient temperature & humidity		-10 ~ 55 °C, 35 ~ 85 % RH (without condensation)			
Storage temperature		-20 ~ 65 °C			
Vibration resistance		10 - 55 Hz, double amplitude 0.75 mm, 3 axes each direction, 2 h			
Shock resistance		300 m/s, 3 axes each direction each 3 times			
Weight		Approx. 110 g			

### Suffix code

Model	Code	Content			
LF4N-	□	LCD Timer			
Types selection	A	Time limit 1c	Operating mode (10 types)		8-pin socket type
	B	Time limit 1c, instantaneous 1c	ON delay output (A mode fixed)		
	C	Time limit 2c			
	D	Time limit 1c	Operating mode (10 types)		11-pin socket type
Power voltage	24 - 240 V a.c./d.c. 50/60 Hz				