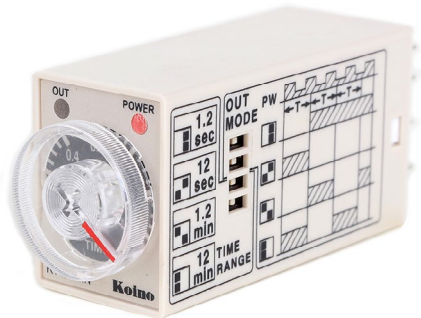


## KTM-3MN Series

KTM-3MN series multi timing relay  
Miniature timer with multiple time ranges and operating modes

### FEATURE

- Compact size
- Various time and mode setting
- Output and operation indicator
- Change setting in real time with DIP switch
- Time error maximum 5%



### CLASSIFICATION

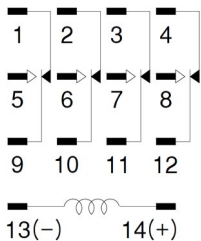
KTM-3MN- ① - ② - ③

	Mark	Description
		KTM-3MN
① Time range	1	1.2sec~12min
	3	3sec~30min
	7	1.2min~12hour
	9	3min~30hour
	5 (Order made)	6sec~60min
	6 (Order made)	6min~60hour
② Power supply voltage	A1	100~120VAC
	A2	200~230VAC
	D1	12VDC
	D2	24VDC
③ Pin type	None	4P
	2	2P

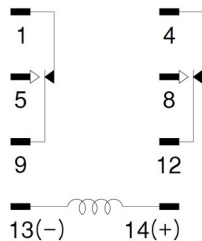
### WIRING

\*AC 100~120V, 200~230V  
50/60hZ  
\*DC 12V, 24V  
Be careful when connecting  
wires to contact# 13 & 14

· KTM-3MN



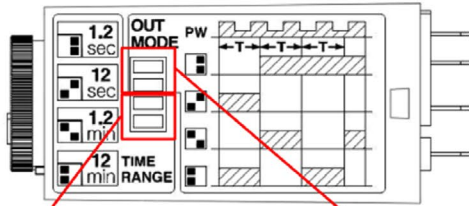
· KTM-3MN 2



# TIMER COUNT

## DIP switch settings

EX) 1.2sec~12min



Time setting

Model	Time range	Time setting range	DIP switch
KTM-3MN1x	1.2sec	0.05 ~ 1.2sec	
	12sec	0.5 ~ 12sec	
	1.2min	0.05 ~ 1.2min	
	12min	0.5 ~ 12min	
KTM-3MN3x	3sec	0.125 ~ 3sec	
	30sec	1.25 ~ 30sec	
	3min	0.125 ~ 3min	
	30min	1.25 ~ 30min	
KTM-3MN7x	1.2min	0.05 ~ 1.2min	
	12min	0.5 ~ 12min	
	1.2hour	0.05 ~ 1.2hour	
	12hour	0.5 ~ 12hour	
KTM-3MN9x	3min	0.125 ~ 3min	
	30min	1.25 ~ 30min	
	3hour	0.125 ~ 3hour	
	30hour	1.25 ~ 30hour	

\*KTM-3MN5x, KTM-3MN6x: Order made only

\*t= time, (t-a)<t

\*Rt= Reset time (0.1 sec. min.)

\*2 PIN: Time limit contact NC(1-9, 4-12),  
Time limit contact NO(1-5, 4-8)

Mode setting

Operating mode	
MODE 1	ON DELAY
MODE 2	INTERVAL
MODE 3	FLICKER OFF START
MODE 4	FLICKER ON START

## PRECAUTION

For DC power supply type, be sure to check the polarity of terminals

In case of 12VDC, 24VAC/DC model, isolated and limited voltage/current or Class 2 source should be provided for power supply.

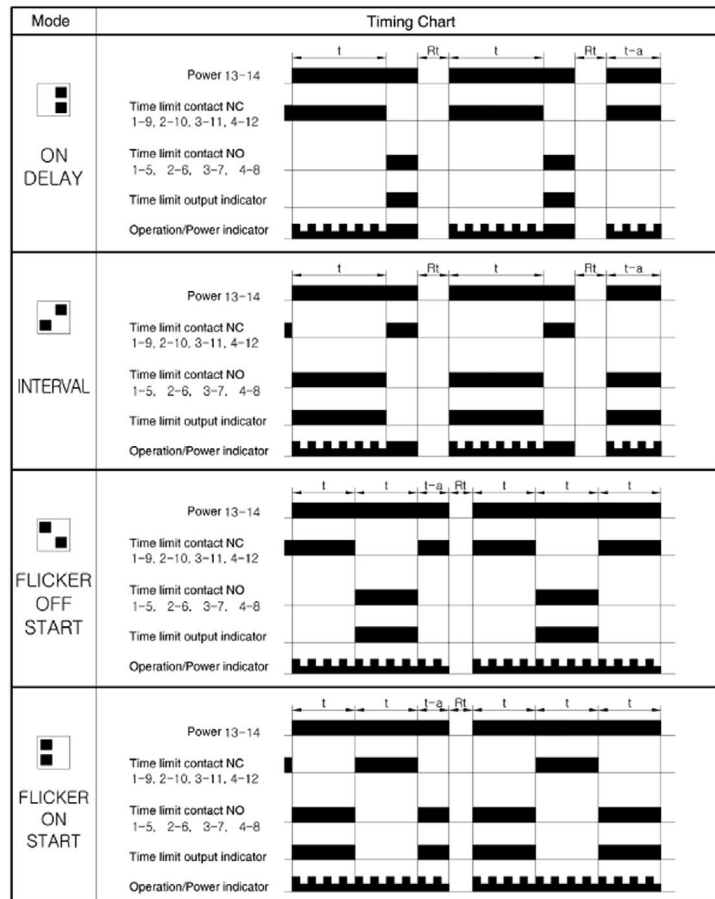
Do not use the unit at below places.

- 1.Place exposed to constant vibration and shock
- 2.Place where strong alkalis or acid are used.
- 3.Place exposed to direct sunlight
- 4.Place exposed to strong magnetic field or electrical noise

Appropriate installation location

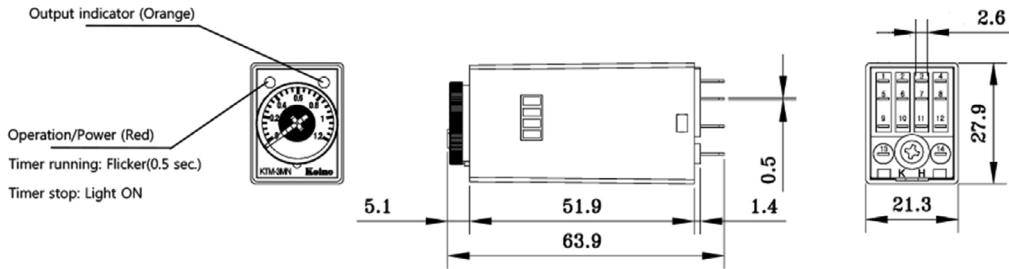
Indoor, Below 2000m altitude,  
Under pollution degree 2

## Timing chart



# TIMER COUNT

## DIMENSIONS



## TECHNICAL DATA

Model	KTM-3MNxA1(2)	KTM-3MNxA2(2)	KTM-3MNxD1(2)	KTM-3MNxD2(2)
Time	1.2sec~12min / 3sec~30min / 1.2min~12hour / 3min~30hour			
Operation mode	ON DELAY, INTERVAL, FLICKER ON START , FLICKER OFF START			
Compatible sockets	KH - RS - 14M, KH - RS - 14N (KOINO - 14pin Socket)			
Input Voltage	100~120VAC	200~230VAC	12VDC	24VDC
Operating voltage range	90~110% of rated voltage			
Power Consumption	3VA max.		1.5W max.	
Reset time	100ms max. (Power reset time)			
Contact Output Ratings	2PIN = 220VAC, 5A (Resistive) / 4PIN = 220VAC, 3A (Resistive)			
Relay durability	Mechanical	Minimum 10 million operations		
	Electrical	Minimum 200,000 operations (1800/ hour)		
Contact	2PIN : 2C (2a2b) / 4PIN : 4C (4a4b)			
Operation time deviation	± 0.5%, 10msec Max. ( at the maximum time setting)			
Set deviation	± 5%, 50msec Max. ( at the maximum time setting)			
Voltage deviation	± 0.2% Max. ( at the maximum time setting)			
Temperature deviation	± 2% Max. ( at the maximum time setting)			
Insulation resistance	100M ( at 500VDC)			
Noise-proof	By noise simulator (pulse width: 100 ns/ 1 us, 1 - ns rise) ± 2,000V			
Dielectric strength	2,000VAC 50/60Hz for 1 minute ( between live - part and dead - part)			
Vibration resistance	10 to 55 Hz, 0.5mm single double for 1 hour each in 3 directions			
Shock resistance	Approx. 30G (300m/s <sup>2</sup> )			
Ambient Temperature	Operation: - 10 ~ +50 (with no icing)			
	Storage: -20 ~ +55 (with no icing)			
Ambient Humidity	35~85% RH			
Protection degree	IP40			
Materials	Case:ABS, Body:PC, Dial:PC			
Weight	Approx. 40g			

SQUARE LIGHT

TOWER LIGHT

BUZZER

TIMER & COUNTER

RELAY

SOCKETS

TERMINAL BLOCKS

CONTROL BOX

**KOINO**