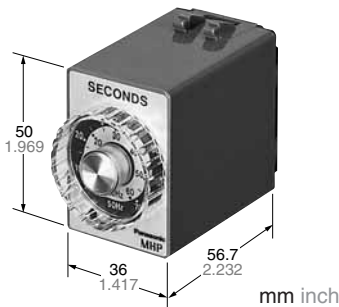




UL File No.: E59504
CSA File No.: LR39291



Features

- Highly reliable with bifurcated contacts and block construction
- Various time range types selectable
- Two output types available MHP timers : Timed-out 1 Form C
MHP-M timers : Timed-out 1 Form C
Instantaneous 1 Form A
- Flush-mountable with mounting accessory
- UL/CSA and LLOYD recognized type available

RoHS Directive compatibility information
<http://www.nais-e.com/>

Specifications

Type	MHP timers	MHP-M timers
Rated operating voltage	120V AC, 220V AC, 240V AC	
Rated frequency	50Hz or 60Hz (other model)	
Rated power consumption	Max. 4VA	
Rated control capacity	5A 250V AC (resistive load)	
Operating time fluctuation	±2% of max. scale	
Output arrangement	Timed-out 1 Form C	Timed-out 1 Form C, Instantaneous 1 Form A
Contact resistance (Initial value)	Max. 50mΩ (at 1A 6V DC)	
Life (min. operations)	Mechanical (contact)	10 ⁷
	Electrical (contact)	4 × 10 ⁵ (at rated control capacity)
Allowable operating voltage range	80 to 110% of rated operating voltage	
Insulation resistance (Initial value)	Min. 100MΩ	Min. 100MΩ
	Between live and dead metal parts	Between live and dead metal parts/input and output
	Between contact sets (At 500V DC)	Between contact sets (At 500V DC)
Breakdown voltage (Initial value)	2000Vrms for 1min Between live and dead metal parts	2000Vrms for 1min Between live and dead metal parts/input and output
	2000Vrms for 1min Between contact sets	2000Vrms for 1min Between contact sets
	1000Vrms for 1min Between contacts	1000Vrms for 1min Between contacts
Min. power off time	300 ms (Max. setting time value)	
Vibration resistance	Functional	10 to 55Hz: 1 cycle/min double amplitude of 0.3mm (10min on 3 axes)
	Destructive	16.7Hz: double amplitude of 4mm (1 h on 3 axes)
Shock resistance	Functional	Min. 147m/s ² (4 times on 3 axes)
	Destructive	Min. 980m/s ² (5 times on 3 axes)
Max. temperature rise	55°C 131°F	
Ambient temperature	-10 to 50°C +14 to 122°F	
Ambient humidity	30 to 85% RH (non-condensing)	

Product types

ORDERING INFORMATION

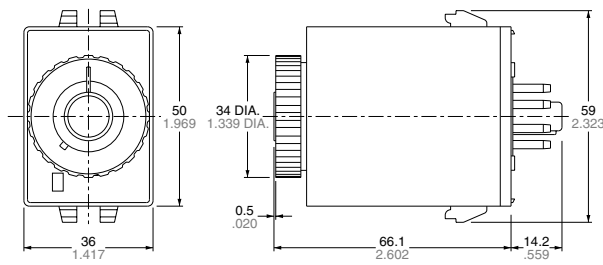
Ex. MHP- **NM** — **5S** **AC120V** **60Hz**

Timer type	Time range *		Operating voltage	Operating frequency
	50Hz type	60Hz type		
N: MHP Timers NM: MHP-M Timers	5S	0.2 to 6s	AC120V: 120V AC AC220V: 220V AC AC240V: 240V AC	50Hz: 50Hz type 60Hz: 60Hz type
	10S	0.3 to 12s		
	30S	1 to 36s		
	60S	2 to 72s		
	3M	0.1 to 3.5min		
	6M	0.2 to 7min		
	12M	0.3 to 14min		
	30M	1 to 36min		
	60M	2 to 72 min		
	3H	0.1 to 3.5h		
	6H	0.2 to 7h		
	12H	0.3 to 14h		
	24H	0.5 to 28h		

*3H, 6H, 12H and 24H types unavailable in MHP timers.

Cadmium free contact types are available on a custom-made basis. Please add an "F" to the end of the part number when ordering.

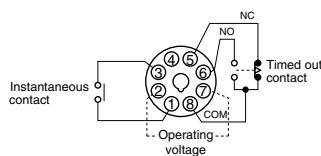
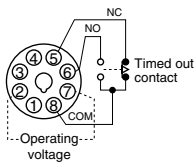
Dimensions





Terminal layouts and Wiring diagrams

1. MHP type

2. MHP-M type

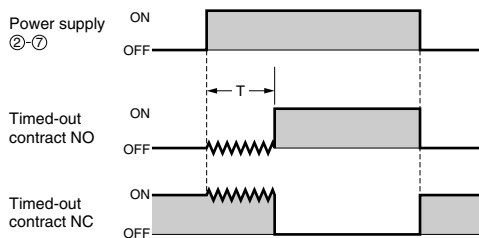


COM: Common terminal
 NC: Normally closed contact
 NO: Normally open contact
 : Timed out contact
 : Instantaneous contact

Operation

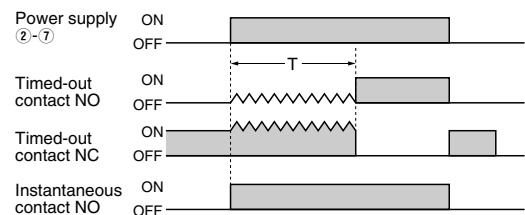
1. MHP type

Power ON-delay



2. MHP-M type

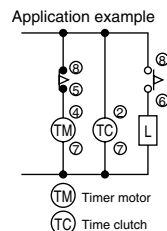
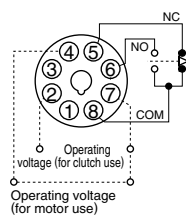
Power ON-delay with instantaneous contact



- Notes:
- Set time should be greater than min. operation time.
 - Once power is cut off or the timing operation is completed, min. power off time is needed to start the operation again.
 - Do not change the set time during operation. When changing set time, cut off power and set the time.

Cautions

1. Prevent using the timer in such places where flammable or corrosive gas is generated, a lot of dust exists, oil is splashed or considerable shock and vibration occur.
2. Since the main body cover is made of polycarbonate resin, prevent contact with organic solvents such as methyl alcohol, benzene and thinner, or strong alkali materials such as ammonia and caustic soda. In order to maintain the characteristics of the timer, do not remove the case. Install in accordance with the intended use. Furthermore, do not loosen the 4 screws in the base section.
3. Do not make direct solder connections to the round pins.
4. Do not attempt to turn the setting knob beyond the stops.
5. Avoid long time continuous current flow operation. For long time current flow operation, a type is available with separate connection for the motor clutch.



Use when power will be continuous for long periods of time. Timed-out output arrangement is 1a in this case. Please add "71" to the end of the part number when ordering.