

FUJI 1/16 DIN TIMER MANUAL



Models:

MS4SM-xx-ADC,
MS4SA-xx-ADC
MS4SC-xx-ADC

Safety Precautions

To ensure safe and proper operation, read this manual before installation, wiring, operation, maintenance, and inspection. Manual should be furnished to the final user.



Original Edition
May 2003



WARNING: Incorrect installation or operation may cause death or serious injury, and damage to equipment. It may also be necessary to use fail-safe measures if controlling a critical process or safety application.

- Remove input power before installation, wiring, maintenance or inspection to prevent electrical shock.
- Do not use this device if damaged when unpacked.
- Only qualified personnel should perform installation, maintenance or inspection of this device.
- To prevent fire, accidents and malfunction of this device, do not install in environments with high temperature, high humidity, dust, corrosive gases, water, direct sunlight or excessive vibration. Do not expose the case to solvents or corrosive substances such as benzene, strong acids or alkalis.
- Use this device within the range of its rated voltage and current.
- Fire may occur if the power supply and load are incorrectly connected.
- To prevent poor contact operation, keep timer from exposure to dust, concrete chips, iron filings and similar materials.
- To prevent terminal malfunction, tighten periodically.
- Never disassemble, modify or repair this device.
- If replacing this device, be sure to dispose of it properly.

Operation

- Set the time within the range of the timing scale divisions. To make timer output a signal as soon as power is turned on, turn timer dial fully counterclockwise.
- The timer dial can be turned while the timer is operating, but the time for that operation will not be correct.
- Do not try to turn the timer dial outside the timing range. Turn dial carefully and do not force.
- Do not remove the timer case, or the operating characteristics will change.

Timers



MS4SM-AP-ADC
MS4SM-CE-ADC



MS4SA-AP-ADC
MS4SA-CE-ADC



MS4SC-AP-ADC
MS4SC-CE-ADC

Sockets



TP48X



TP48SBA



TP411X

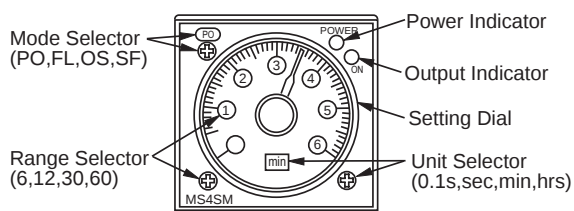


TP411SBA

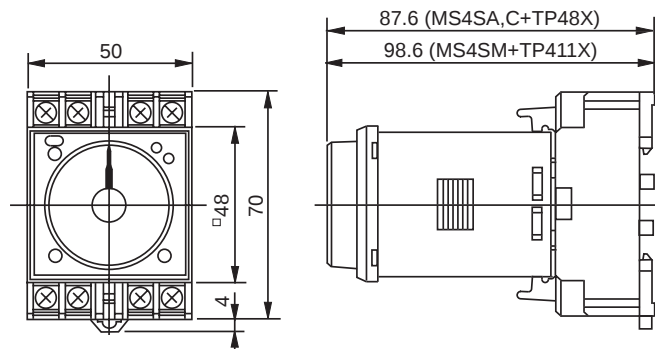
Specifications		
Approvals	UL file no.: E44592, CSA file no.: LR20479, TÜV license no: R9551800	
Repeat Accuracy	±0.3% at maximum setting time	
Reset Time	0.1 second or less	
Operating Voltage Range	85-264VAC MS4SM-AP-ADC MS4SA-AP-ADC MS4SC-AP-ADC	20.4-26.4VDC/VAC MS4SM-CE-ADC MS4SA-CE-ADC MS4SC-CE-ADC
Operating Temperature Range	-10 to +55°C (14 to 131°F) (no icing)	
Humidity	35 to 85% (no condensation)	
Contact Ratings	5A at 30VDC resistive load, 1A @ 30VDC inductive load, 5A @ 250VAC resistive load, 2.5A @ 120VAC inductive load	
Power Consumption	Approx. 10VA at 120/240VAC; 1W at 24VDC	
Insulation Resistance	100MΩ at 500 VDC insulation tested	
Dielectric Strength	2000VAC 1 min. between current carrying part and non-current carrying part 2000VAC 1 min. between output contact and control circuit 1000VAC 1 min. between open contacts	
Vibration	Malfunction durability: 10 to 55Hz, 0.5mm double amplitude Mechanical durability: 10 to 55Hz, 0.75mm double amplitude	
Shock	Malfunction durability: 100m/s ² Mechanical durability: 500m/s ²	
Life Expectancy	Mechanical: 20 million operations Electrical: 100,000 operations at 250VAC 5A resistive load	
Weight	Approx. 100g (3.527 oz.)	

Timing Range Chart				
Range Selection	Unit Selection			
	X0.1s	Sec	Min	Hrs
6	0.05-06s	0.5-6s	0.5-6min	0.5-6h
12	0.1-1.2s	1-12s	1-12min	1-12h
30	0.25-3s	2.5-30s	2.5-30min	2.5-30h
60	0.5-6s	5-60s	5-60min	5-60h

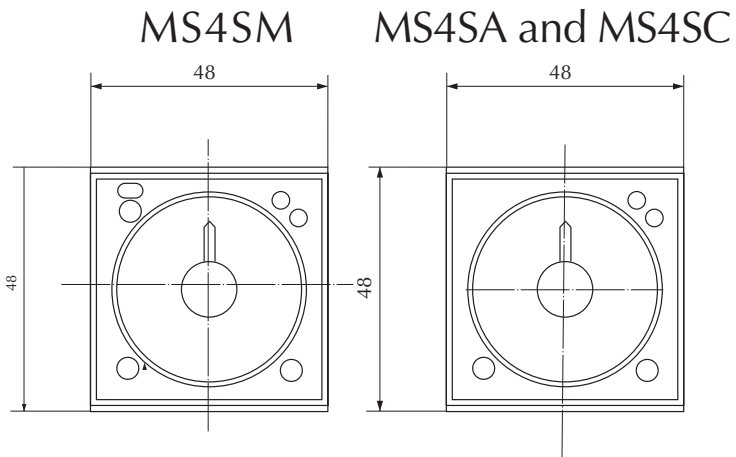
Control



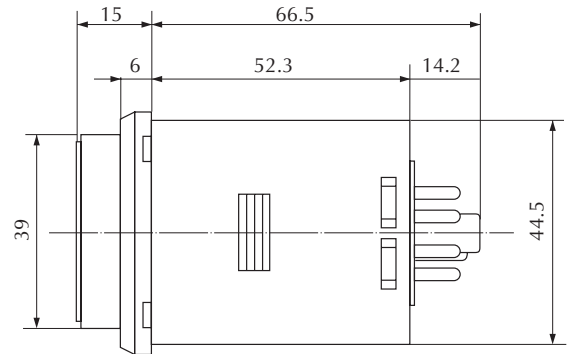
Dimensions (Timer and Socket Shown Attached)



Dimensions (Timer and Socket Shown Separately)

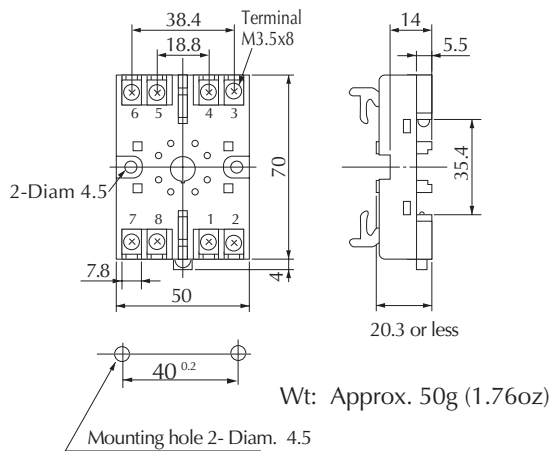


Side View



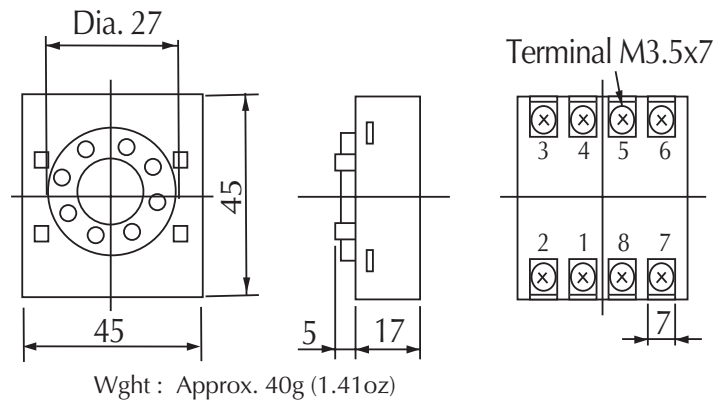
Wt : Approx. 100g (3.53oz)

Socket for MS4SA, MS4SC (8-pin) TP48X

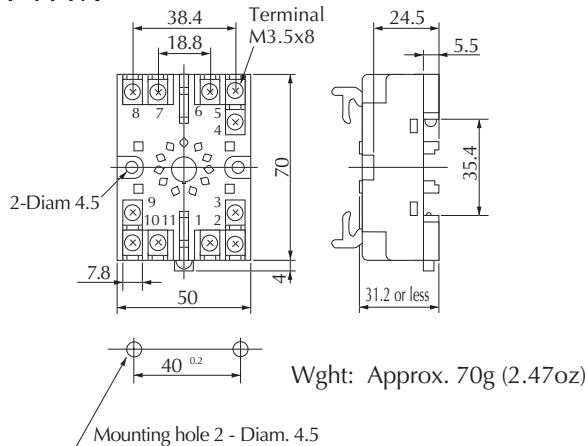


Wt: Approx. 50g (1.76oz)

Sockets for MS4SA, MS4SC (8-pin) TP48SBA

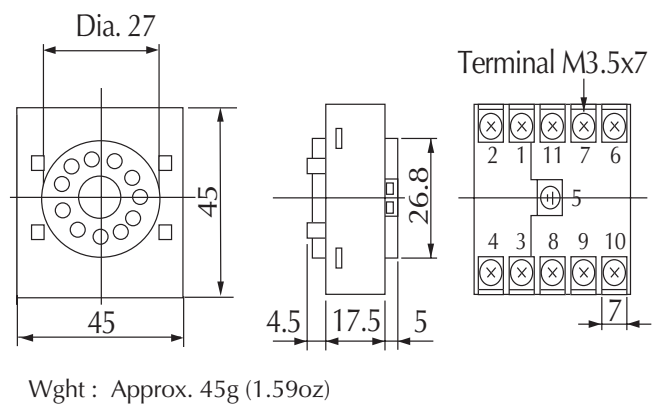


Socket for MS4SM (11-pin) TP411X



Wght: Approx. 70g (2.47oz)

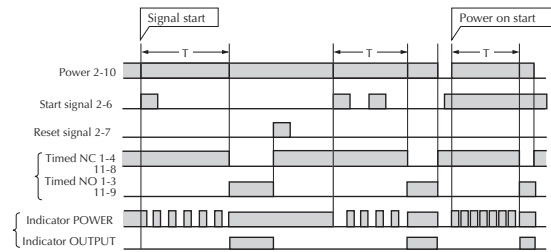
Sockets for MS4SM (11-pin) TP411SBA



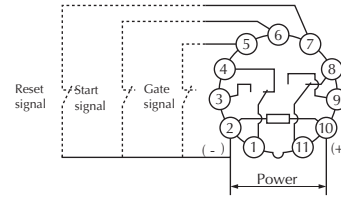
Timing and Wiring Diagrams

MS4SM

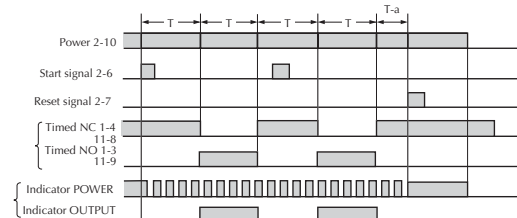
1. On-delay PO



- With power off turn the mode selector until PO is displayed.
- When power is on, applying the start signal turns the timed N.O. (normally open) contact on after the set time has elapsed.
- When using a power-on start, pins 2 and 6 (start signal) must be jumpered together

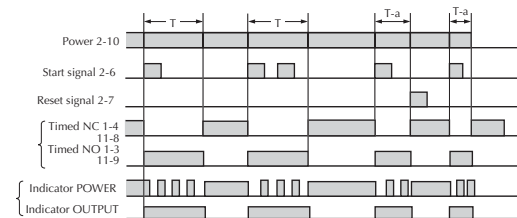


2. Flicker FL



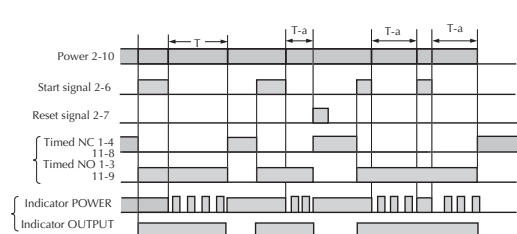
- With power off, turn the mode selector until FL is displayed.
- When power is on, applying the start signal turns the timed contact on and off repeatedly at the set time intervals.

3. One-shot OS



- With power off, turn the mode selector until OS is displayed.
- When power is on, applying the start signal instantly turns the timed N.O. contact on and turns it off after the set time has elapsed.

4. Signal off-delay SF



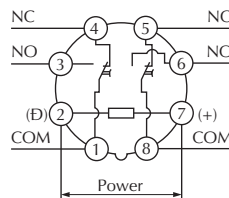
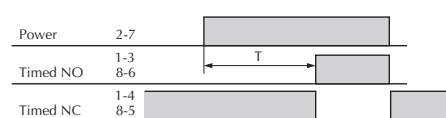
- With power off, turn the mode selector until SF is displayed.
- When power is on, applying the start signal instantly turns the timed N.O. contact on. Removing the start signal turns the contact off after the set time has elapsed.

Notes:

1. T = set time. t = time period within set time.
2. The gate signal is used to interrupt the timing operation.

MS4SA

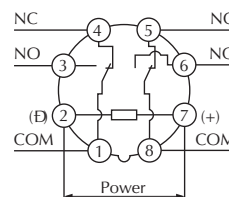
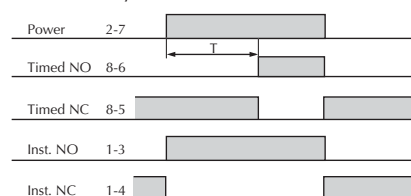
On-delay



- When power is applied, the timed N.O. contacts make after the set time has elapsed.
- When power is removed, the contacts reset.

MS4SC

On-delay



- Timed contact
When power is applied, the N.O. contact makes after the set time has elapsed. When power is removed, the contacts reset.
- Instantaneous contact
When power is applied, the N.O. contact makes instantly. When power is removed, the contacts reset.

Notes: