

# Fuji 1/16 DIN Super Timers

## Overview

The MS4S series super timers are 1/16 DIN style timing relays designed for process control, machine tool control, safety control and many other types of applications. The timers are plug-in 8-pin or 11-pin surface/DIN-rail mountable with up to four selectable modes of operation and four selectable timing ranges.



## Features

### MS4SM Series

- Multi-mode timer with mode indication. On-delay (PO), flicker (FL), one-shot (OS), or signal off-delay (SF)
- 11-pin plug-in with start, reset and gate (interrupt) input signals and a DPDT contact output
- Timing range from 0.05 seconds to 60 hours
- Timer scale with selectable ranges of 0-6, 0-12, 0-30 and 0-60
- Timing units in selectable ranges of 0.1s, sec, min and hrs
- Power on LED indicator (green) flickers during timing operation, UP (red) LED is on when normally open contact is closed

### MS4SA Series

- On-delay timer
- 8-pin plug-in with a DPDT contact output
- Timing range from 0.05 seconds to 60 hours

- Timer scale with selectable ranges of 0-6, 0-12, 0-30 and 0-60
- Timing units in selectable ranges of 0.1s, sec, min and hrs
- Power on LED indicator (green) flickers during timing operation, UP (red) LED is on when normally open contact is closed

### MS4SC Series

- On-delay timer
- 8-pin plug-in with a SPDT timed contact output and a SPDT instantaneous contact output
- Timing range from 0.05 seconds to 60 hours
- Timer scale with selectable ranges of 0-6, 0-12, 0-30 and 0-60
- Timing units in selectable ranges of 0.1s, sec, min and hrs
- Power on LED indicator (green) flickers during timing operation, UP (red) LED is on when normally open contact is closed

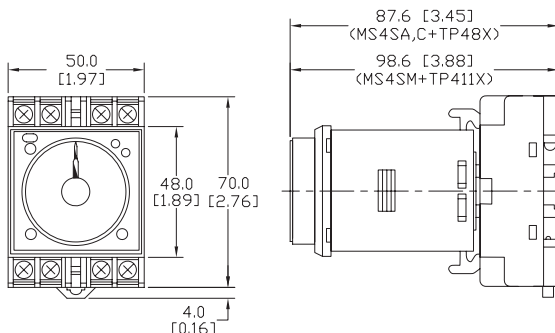
Product Selection Guide				
Part Number	Price	Description	Voltage	Time Range
MS4SM-AP-ADC	\$56.00	Multi-mode timer with selectable timing range from 0.05s to 60 hours. Input power is 100 - 240 VAC. DPDT relay output. 11-pin connection. UL, CSA, TÜV approved. <i>Note:</i> Socket mounts must be purchased separately	100-240 VAC	0.05 seconds to 60 hours
MS4SA-AP-ADC	\$56.00	On-delay timer with selectable timing range from 0.05s to 60 hours. Input power is 100 - 240 VAC. DPDT relay output. 8-pin connection. UL, CSA, TÜV approved. <i>Note:</i> Socket mounts must be purchased separately		0.05 seconds to 60 hours
MS4SC-AP-ADC	\$56.00	On-delay timer with selectable timing range from 0.05s to 60 hours. Input power is 100 - 240 VAC. SPDT timed relay output and SPDT instantaneous relay output. 8-pin connection. UL, CSA, TÜV approved		0.05 seconds to 60 hours
MS4SM-CE-ADC	\$56.00	Multi-mode timer with selectable timing range from 0.05s to 60 hours. Input power is 24 VDC/AC DPDT relay output. 11-pin connection. UL, CSA, TÜV approved. <i>Note:</i> Socket mounts must be purchased separately	24 VDC/AC	0.05 seconds to 60 hours
MS4SA-CE-ADC	\$56.00	On-delay timer with selectable timing range from 0.05s to 60 hours. Input power is 24 VDC/AC. DPDT relay output. 8-pin connection. UL, CSA, TÜV approved. <i>Note:</i> Socket mounts must be purchased separately		0.05 seconds to 60 hours
MS4SC-CE-ADC	\$51.00	On-delay timer with selectable timing range from 0.05s to 60 hours. Input power is 24 VDC/AC. SPDT timed relay output and SPDT instantaneous relay output. 8-pin connection. UL, CSA, TÜV approved. <i>Note:</i> Socket mounts must be purchased separately		0.05 seconds to 60 hours
TP411X	\$8.00	DIN rail/surface mount socket for MS4SM series timers. UL, CSA, TÜV approved	N/A	N/A
TP411SBA	\$8.00	Panel mount socket for MS4SM series timers. UL, CSA, TÜV approved, requires PANEL-16*		
TP48X	\$8.00	DIN rail/surface mount socket for MS4SA and MS4SC series timers. UL, CSA, TÜV approved		
TP48SB	\$8.00	Panel mount socket for MS4SA and MS4SC series timers. UL, CSA, TÜV approved, requires PANEL-16*		
PANEL-16	\$13.50	Mounting clip for 1/16th DIN timers and temperature/process controllers, for door (flush) mounting. 5 clips per package		

\*Panel clips for mounting through a door are optional and must be purchased separately.

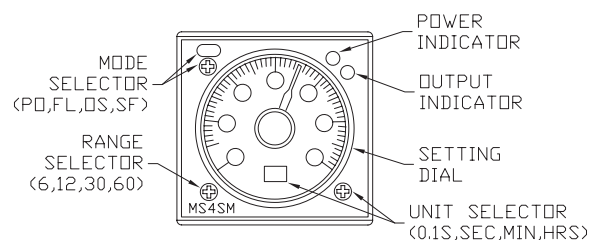
## Dimensions

mm [inches]

### (Timer and Socket Assembly)



### Control



# Fuji 1/16 DIN Super Timers



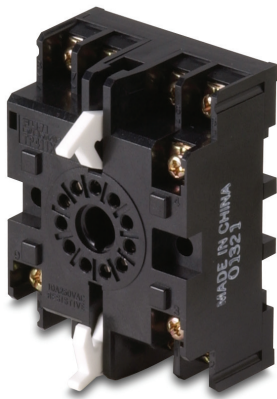
**MS4SM-AP-ADC**  
**MS4SM-CE-ADC**



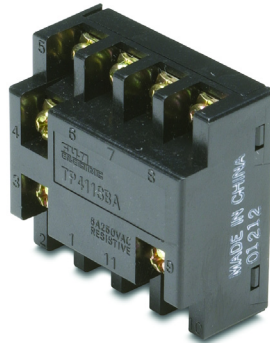
**MS4SA-AP-ADC**  
**MS4SA-CE-ADC**



**MS4SC-AP-ADC**  
**MS4SC-CE-ADC**



**TP411X**



**TP411SBA\***



**TP48X**



**TP48SB\***

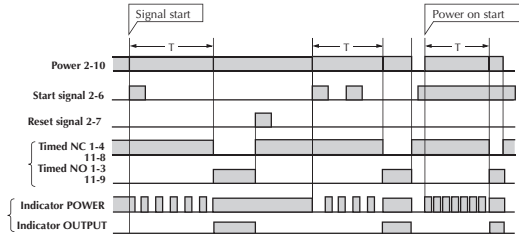
Specifications	
<b>Approvals</b>	UL file no.: E44592, CSA file no.: LR20479, TÜV license no: R9551800
<b>Repeat Accuracy</b>	±0.3% at maximum setting time
<b>Reset Time</b>	0.1 second or less
<b>Operating Voltage Range</b>	85-264 VAC 50/60Hz 20.4-26.4 VDC/AC MS4SM-AP-ADC MS4SM-CE-ADC MS4SA-AP-ADC MS4SA-CE-ADC MS4SC-AP-ADC MS4SC-CE-ADC
<b>Operating Temperature Range</b>	-10 to +55°C (14 to 131°F) (no icing)
<b>Humidity</b>	35 to 85% (no condensation)
<b>Contact Ratings</b>	5A at 30VDC resistive load, 1A @ 30VDC inductive load, 5A @ 250VAC resistive load, 2.5 A @ 120VAC inductive load
<b>Power Consumption</b>	Approx. 10VA for AC; 1W at 24VDC
<b>Insulation Resistance</b>	100MΩ at 500VDC insulation tested
<b>Dielectric Strength</b>	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
<b>Vibration</b>	Malfunction durability: 10 to 55Hz, 0.5mm double amplitude Mechanical durability: 10 to 55Hz, 0.75mm double amplitude
<b>Shock</b>	Malfunction durability: 100m/s <sup>2</sup> Mechanical durability: 500m/s <sup>2</sup>
<b>Life Expectancy</b>	Mechanical: 20 million operations (No load operation cycle: 1800/hr.) Electrical: 100,000 operations at 250 VAC 5 A resistive load (operation cycle: 1800/hr)
<b>Weight</b>	Approx. 100g (3.527 oz)

\*When using panel mount sockets TP411SBA and TP48SB, mounting clip PANEL-16 is required and must be purchased separately.

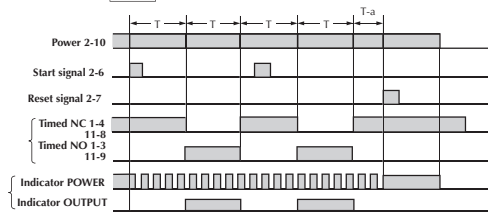
# Fuji 1/16 DIN Timers Timing and Wiring Diagrams

## MS4SM

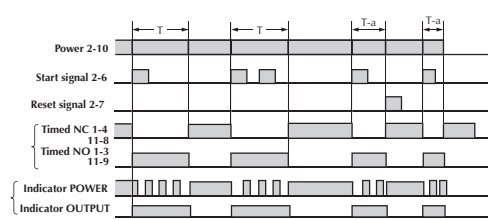
### 1. On-delay PO



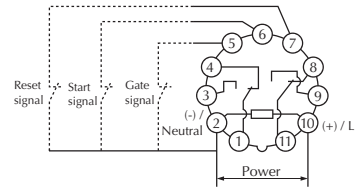
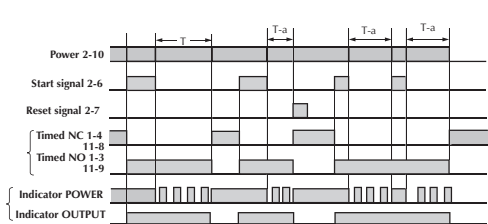
### 2. Flicker FL



### 3. One-shot OS



### 4. Signal off-delay SF



- 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
- To make timer output a signal as soon as power is turned on, turn timer dial fully counter-clockwise.

- 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.
- When using a power-on start, pins 2 and 6 (start signal) must be jumpered together

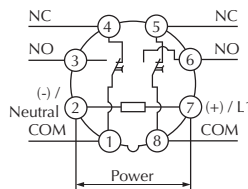
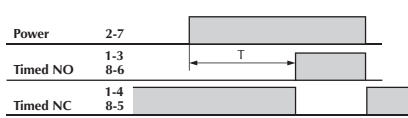
- With power off, turn the mode selector until **OS** is displayed.
- When power is on, applying the start signal instantly turns the timed N.O. contact on and turns it off after the set time has elapsed.

- 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:**

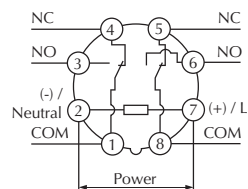
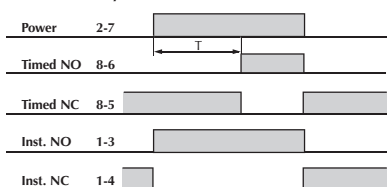
1.  $T$  = set time.  $t$  = time period within set time.
2. The gate signal is used to interrupt the timing operation.

## 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.
- To make timer output a signal as soon as power is turned on, turn timer dial fully counter-clockwise.

## MS4SC On-delay

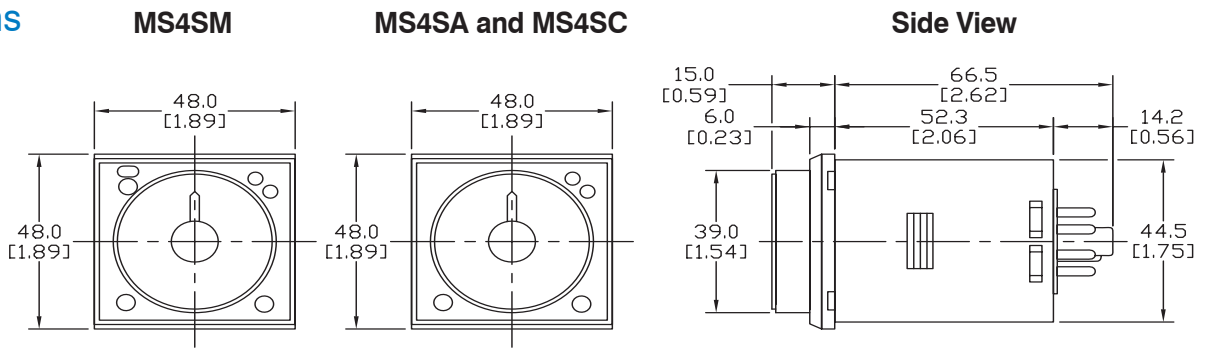


- Timed contact  
When power is applied, the N.O. contact makes after the set time has elapsed. When power is removed, the contacts reset.
- Instantaneous contact  
When power is applied, the N.O. contact makes instantly. When power is removed, the contacts reset.
- To make timer output a signal as soon as power is turned on, turn timer dial fully counter-clockwise.

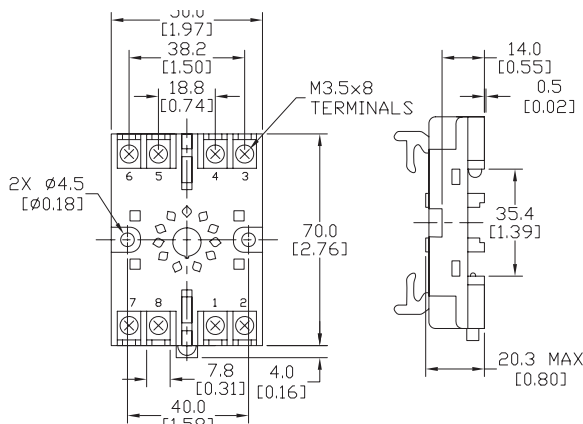
# Fuji 1/16 DIN Super Timers Dimensions

## Dimensions

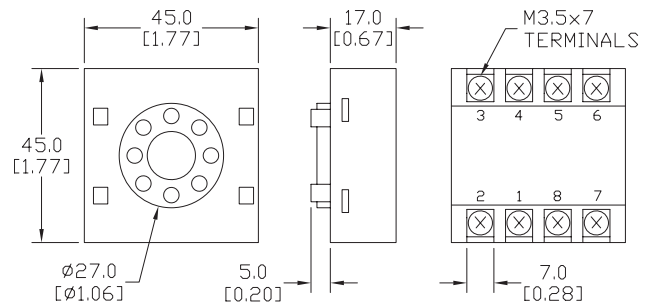
mm [inches]



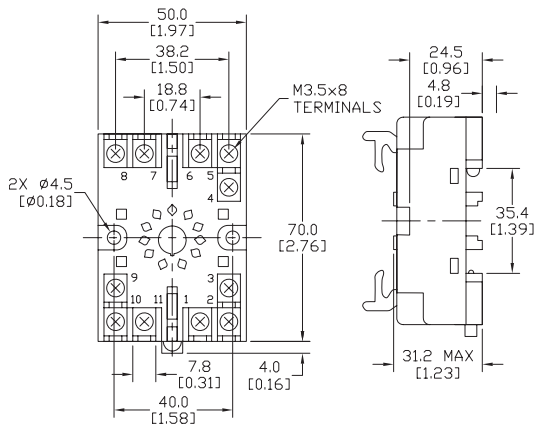
**Socket for MS4SA, MS4SC (8-pin)**  
TP48X



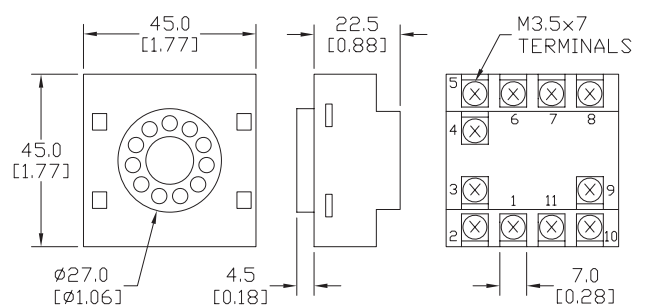
**Socket for MS4SA, MS4SC, (8-pin)**  
TP48SB



**Socket for MS4SM (11-pin)**  
TP411X



**Socket for MS4SM (11-pin)**  
TP411SBA



**Cutout for panel mounting TP48SB and TP411SBA sockets using PANEL-16 mounting clips**

