

# 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.



### 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 0-60s

- 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

## Fuji 1/16 DIN Super Timers Selection Chart

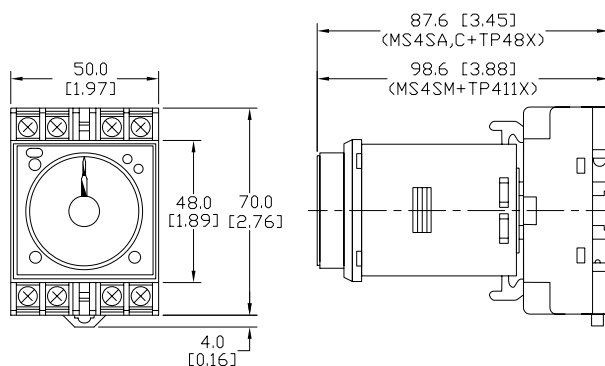
Part Number	Price	Description	Time Range
<b><u>MS4SM-AP-ADC*</u></b>	\$70.00	Fuji Electric multi-mode relay timer, 0.05 seconds to 60 hours selectable timing range, 100-240 VAC operating voltage, 5A contact rating, (1) DPDT timed relay output(s), socket mount, 11-pin. Requires Fuji Electric TP411X or TP411SBA timer socket.	0.05 seconds to 60 hours
<b><u>MS4SA-AP-ADC</u></b>	\$70.00	Fuji Electric on-delay relay timer, 0.05 seconds to 60 hours selectable timing range, 100-240 VAC operating voltage, 5A contact rating, (1) DPDT timed relay output(s), socket mount, 8-pin. Requires Fuji Electric TP48X or TP48SB timer socket.	0.05 seconds to 60 hours
<b><u>MS4SC-AP-ADC*</u></b>	\$70.00	Fuji Electric on-delay relay timer, 0.05 seconds to 60 hours selectable timing range, 100-240 VAC operating voltage, 5A contact rating, (1) SPDT timed relay and (1) SPDT instant relay output(s), socket mount, 8-pin. Requires Fuji Electric TP48X or TP48SB timer socket.	0.05 seconds to 60 hours
<b><u>MS4SM-CE-ADC*</u></b>	\$70.00	Fuji Electric multi-mode relay timer, 0.05 seconds to 60 hours selectable timing range, 24 VAC/VDC operating voltage, 5A contact rating, (1) DPDT timed relay output(s), socket mount, 11-pin. Requires Fuji Electric TP411X or TP411SBA timer socket.	0.05 seconds to 60 hours
<b><u>MS4SA-CE-ADC*</u></b>	\$70.00	Fuji Electric on-delay relay timer, 0.05 seconds to 60 hours selectable timing range, 24 VAC/VDC operating voltage, 5A contact rating, (1) DPDT timed relay output(s), socket mount, 8-pin. Requires Fuji Electric TP48X or TP48SB timer socket.	0.05 seconds to 60 hours
<b><u>MS4SC-CE-ADC*</u></b>	\$65.00	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.	0.05 seconds to 60 hours
<b><u>TP411X</u></b>	\$10.00	Fuji Electric timer socket, 35mm DIN rail mount. For use with MS4SM series timers.	N/A
<b><u>TP411SBA</u></b>	\$10.00	Fuji Electric timer socket, panel mount. For use with MS4SM series timers.	
<b><u>TP48X</u></b>	\$10.00	Fuji Electric timer socket, 35mm DIN rail mount. For use with MS4SA and MS4SC series timers.	
<b><u>TP48SB</u></b>	\$10.00	Fuji Electric timer socket, panel mount. For use with MS4SA and MS4SC series timers.	
<b><u>PANEL-16</u></b>	\$17.00	AutomationDirect mounting clips, package of 5. For use with 1/16 DIN timers and counters.	

\* Socket mounts must be purchased separately

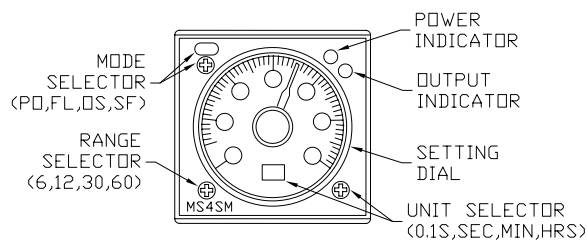
## Dimensions

mm [inches]

### (Timer and Socket Assembly)



### Control



# Fuji 1/16 DIN Super Timers



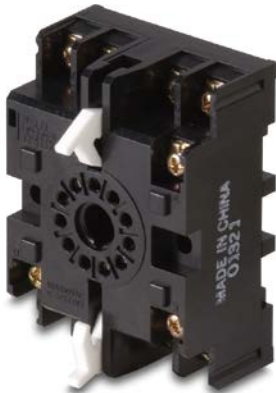
**MS4SM-AP-ADC**  
**MS4SM-CE-ADC**



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



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



**TP411X**



**TP411SBA\***



**TP48X**



**TP48SB\***

## Fuji 1/16 DIN Super Timers 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  <u>MS4SA-AP-ADC</u> <u>MS4SC-AP-ADC</u> <u>MS4SM-AP-ADC</u>	20.4-26.4 VDC/AC  <u>MS4SA-CE-ADC</u> <u>MS4SC-CE-ADC</u> <u>MS4SM-CE-ADC</u>
<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.

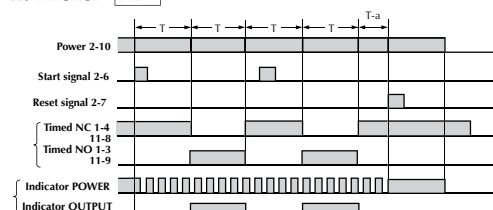
# Fuji 1/16 DIN Timers Timing and Wiring Diagrams

## MS4SM

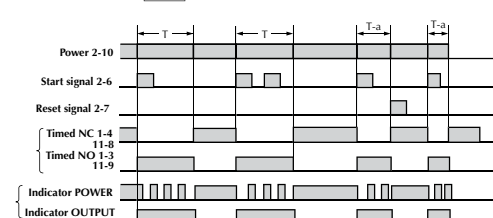
### 1. On-delay PO



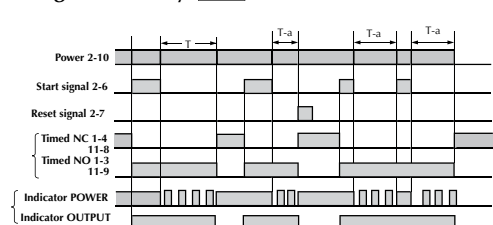
### 2. Flicker FL



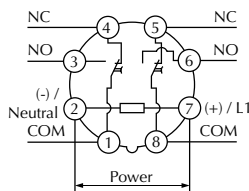
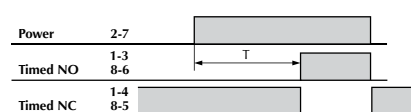
### 3. One-shot OS



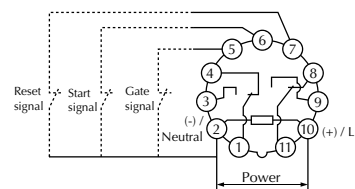
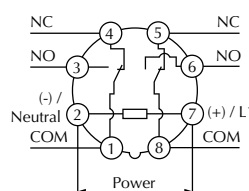
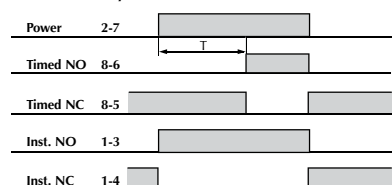
### 4. Signal off-delay SF



## MS4SA On-delay



## MS4SC On-delay



- 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.

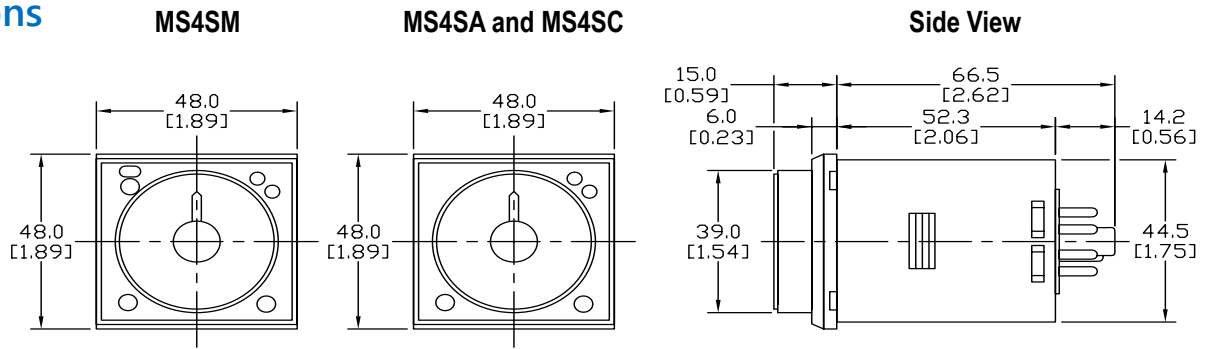
- When power is applied, the timed N.O. contacts make after the set time has elapsed.
- When power is removed, the contacts reset.
- To make timer output a signal as soon as power is turned on, turn timer dial fully counter-clockwise.

- 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.

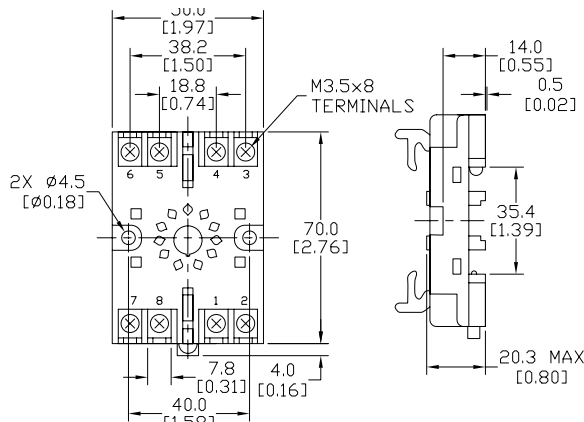
# Fuji 1/16 DIN Super Timers Dimensions

## Dimensions

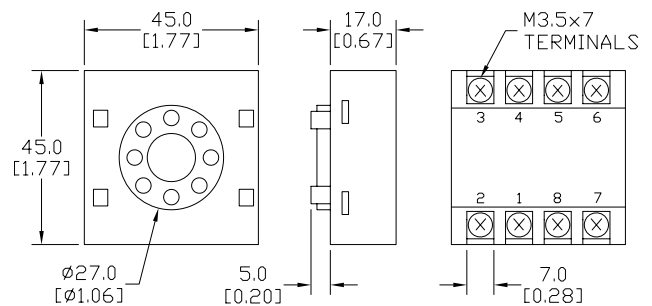
mm [inches]



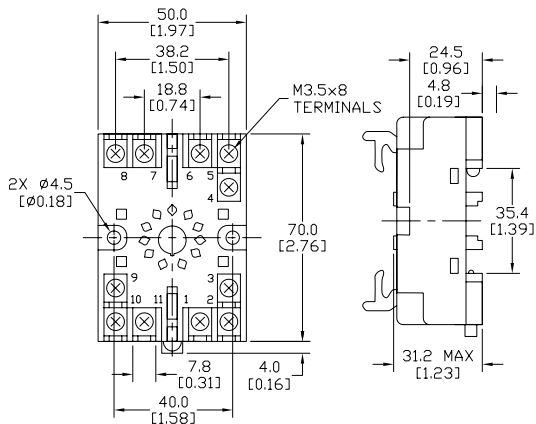
**Socket for MS4SA, MS4SC (8-pin)**  
**TP48X**



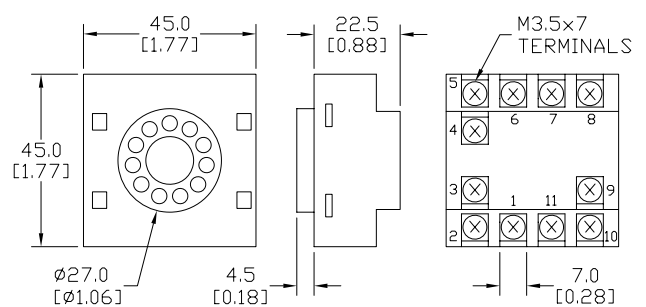
**Socket for MS4SA, MS4SC, (8-pin)**  
**TP48SB**



**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

