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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Voltage</th>
<th>Time Range</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS4SM-AP-ADC</td>
<td>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. Note: Socket mounts must be purchased separately</td>
<td>100-240 VAC</td>
<td>0.05 seconds to 60 hours</td>
<td>$55.00</td>
</tr>
<tr>
<td>MS4SA-AP-ADC</td>
<td>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. Note: Socket mounts must be purchased separately</td>
<td>100-240 VAC</td>
<td>0.05 seconds to 60 hours</td>
<td>$55.00</td>
</tr>
<tr>
<td>MS4SC-AP-ADC</td>
<td>Multi-mode 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. Note: Socket mounts must be purchased separately</td>
<td>100-240 VAC</td>
<td>0.05 seconds to 60 hours</td>
<td>$55.00</td>
</tr>
<tr>
<td>MS4SM-CE-ADC</td>
<td>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. Note: Socket mounts must be purchased separately</td>
<td>24 VDC/AC</td>
<td>0.05 seconds to 60 hours</td>
<td>$55.00</td>
</tr>
<tr>
<td>MS4SA-CE-ADC</td>
<td>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. Note: Socket mounts must be purchased separately</td>
<td>24 VDC/AC</td>
<td>0.05 seconds to 60 hours</td>
<td>$55.00</td>
</tr>
<tr>
<td>MS4SC-CE-ADC</td>
<td>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. Note: Socket mounts must be purchased separately</td>
<td>24 VDC/AC</td>
<td>0.05 seconds to 60 hours</td>
<td>$50.00</td>
</tr>
<tr>
<td>TP411X</td>
<td>DIN rail/surface mount socket for MS4SM series timers. UL, CSA, TÜV approved</td>
<td>N/A</td>
<td>N/A</td>
<td>$7.75</td>
</tr>
<tr>
<td>TP411SBA</td>
<td>Panel mount socket for MS4SM series timers. UL, CSA, TÜV approved, requires PANEL-16*</td>
<td>N/A</td>
<td>N/A</td>
<td>$7.75</td>
</tr>
<tr>
<td>TP48X</td>
<td>DIN rail/surface mount socket for MS4SA and MS4SC series timers. UL, CSA, TÜV approved</td>
<td>N/A</td>
<td>N/A</td>
<td>$7.75</td>
</tr>
<tr>
<td>TP48SB</td>
<td>Panel mount socket for MS4SA and MS4SC series timers. UL, CSA, TÜV approved, requires PANEL-16*</td>
<td>N/A</td>
<td>N/A</td>
<td>$7.75</td>
</tr>
<tr>
<td>PANEL-16</td>
<td>Mounting clip for 1/16th DIN timers and temperature/process controllers, for door (flush) mounting. 5 clips per package</td>
<td>N/A</td>
<td>N/A</td>
<td>$13.00</td>
</tr>
</tbody>
</table>

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

Control

Dimensions (timer and socket assembly)

<table>
<thead>
<tr>
<th>Unit [mm]</th>
<th>Unit [inches]</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.0</td>
<td>1.97</td>
</tr>
<tr>
<td>46.0</td>
<td>1.81</td>
</tr>
<tr>
<td>4.0</td>
<td>0.16</td>
</tr>
<tr>
<td>94.6</td>
<td>3.73</td>
</tr>
<tr>
<td>98.6</td>
<td>3.88</td>
</tr>
<tr>
<td>50.0</td>
<td>1.97</td>
</tr>
</tbody>
</table>

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## Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approvals</strong></td>
<td>UL file no.: E44592, CSA file no.: LR20479, TÜV license no: R951800</td>
</tr>
<tr>
<td><strong>Repeat Accuracy</strong></td>
<td>±0.3% at maximum setting time</td>
</tr>
<tr>
<td><strong>Reset Time</strong></td>
<td>0.1 second or less</td>
</tr>
</tbody>
</table>
| **Operating Voltage Range** | 85-264 VAC 50/60Hz  
MS4SM-AP-ADC  
MS4SM-CE-ADC  
MS4SA-AP-ADC  
MS4SA-CE-ADC  
MS4SC-AP-ADC  
MS4SC-CE-ADC  
20.4-26.4 VDC/AC      |
| **Operating Temperature Range** | -10 to +55°C (14 to 131°F) (no icing)  
35 to 85% (no condensation) |
| **Humidity**           | 35 to 85% (no condensation)                                            |
| **Contact Ratings**    | 5A at 30VDC resistive load, 1A @ 30VDC inductive load, 5A @ 250VAC resistive load, 2.5 A @ 120VAC inductive load |
| **Power Consumption**  | Approx. 10VA for AC, 1W at 24VDC                                      |
| **Insulation Resistance** | 100MΩ at 500VDC insulation tested                                      |
| **Dielectric Strength**| 2000VAC 1 min. between current carrying part and non-current carrying part  
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/s²  
Mechanical durability: 500m/s²                                           |
| **Life Expectancy**    | Mechanical: 2 million operations (No load operation cycle: 1800/hr.)  
Electrical: 100,000 operations at 250 VAC 5 A resistive load (operation cycle: 1800/hr.) |
| **Weight**             | Approx. 100g (3.527 oz)                                                 |

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

When 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.

2. Flicker **FL**

When 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**

When 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**

When 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**

- With power off, turn the mode selector until **PO** is displayed.
- When power is on, applying the start signal turns the timed N.O. 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.

**MS4SC**

- 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.

**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

Socket for MS4SA, MS4SC (8-pin)

Socket for MS4SM (11-pin)

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

All dimensions in mm [inches]