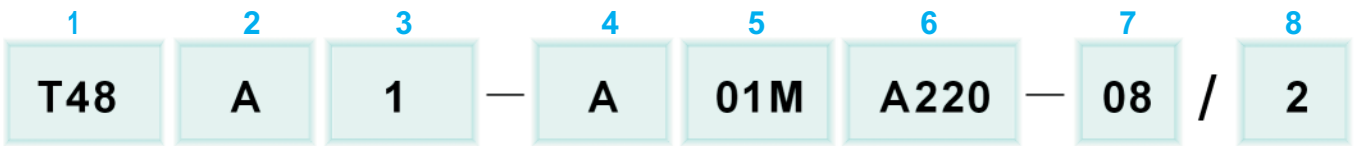


# Multi-range Analog Timers

## ■ Selection Guide For Type Number



### 1. Dimensions:

T29 29(W)x36(H)x82(L)



T36=36(W)x36(H)x88(L)



T40 =40(W)x49(H)x88(L)



T48 =48(W)x48(H)x94(L)



T49 =49(W)x61(H)x70(L)



T49 =49(W)x61(H)x70(L)



T58 =58(W)x88(H)x68(L)



T58 =58(W)x88(H)x68(L)



# Multi-range Analog Timers

## 2. Display status :

A= Analog

B=Digital signals

## 3. Mounting & Socket :

1=Surface(-N)

2=Flush(-Y)

## 4. Output Mode:

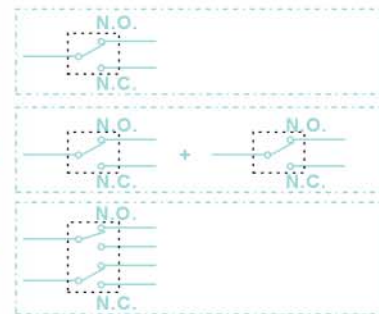
A = Delay SPDT



B = Delay SPDT+ Instantaneous SPDT



C = Delay DPDT



## 5. Time Range

01S = 0.1S - 1S

30S = 0.5S - 30S

30M = 3M - 30M

03S = 0.1S - 3S

60S = 1S - 60S

01H = 0.1H - 1H

06S = 0.1S - 6S

03M = 3S - 3M

03H = 0.3H - 3H

10S = 0.2S - 10S

06M = 6S - 6M

10H = 1H - 10H

10M = 10S - 10M

30H = 3H - 30H

## 6. Power Supply:

A380=AC 380V

A220=AC 220V

AD24=AC 24V or DC 24

A110=AC 110V

D012=DC 12V

## 7. Terminal :

08 = 8 Pins

11 = 11 Pins

## 8. Special specification:

2=Two-range Analog Timers

# T49A Multi-range Analog Timers



## Features:

- **The Advance Controls` 49 Series On Delay Timers** offer two (2) different time spans, a choice of four (4) different timing ranges within each time span a wide range of operating voltages.
- **Multi Range :** By simply setting the time span switch and multiplier switch located on the timer faceplate to the proper position , the timer`s range is automatically set . The faceplate dial automatically changes to indicate the timer`s time range . Thus , the correct time range is always shown on the faceplate eliminating any confusion concerning the timer`s timing range.
- **Wide Range Of Input Voltages:** A wide range of input voltages are allowed (24 VAC/DC through 240 VAC/DC.50/60Hz) without wiring changes or dip switch settings.

- **Timing** begins once power is applied to the timer coil. When the time delay setting is reached, the relay contacts transfer and remain transferred until the timer is reset. The timer is reset by removing power to the coil.

- **Note:** Not for direct motor starting.

## Product Types for T49A

Type	Time Range	Operating Voltage	Part Number		
			Delay SPDT	Delay SPDT+ Instantaneous SPDT	Delay DPDT
T49A	0.1S to 1S	12V AC or 12V DC	T49A1-A01SA012-08	-	T49A1-C01SA012-08
	0.2S to 2S		T49A1-A02SA012-08	-	T49A1-C02SA012-08
	0.6S to 6S		T49A1-A06SA012-08	-	T49A1-C06SA012-08
	0.12S to 12S		T49A1-A12SA012-08	-	T49A1-C12SA012-08
	0.3S to 30S		T49A1-A30SA012-08	-	T49A1-C30SA012-08
	0.6S to 60S		T49A1-A60SA012-08	-	T49A1-C60SA012-08
	0.3S to 3M		T49A1-A03MA012-08	-	T49A1-C03MA012-08
	6S to 6M		T49A1-A06MA012-08	-	T49A1-C06MA012-08
	12S to 12M		T49A1-A12MA012-08	-	T49A1-C12MA012-08
	0.3S to 30M		T49A1-A30MA012-08	-	T49A1-C30MA012-08
	0.01H to 1H		T49A1-A01HA012-08	-	T49A1-C01HA012-08
	0.03H to 3H		T49A1-A03HA012-08	-	T49A1-C03HA012-08
	0.06H to 6H		T49A1-A06HA012-08	-	T49A1-C06HA012-08
	0.12H to 12H		T49A1-A12HA012-08	-	T49A1-C12HA012-08
	0.24H to 24H		T49A1-A24HA012-08	-	T49A1-C24HA012-08

# T49A Multi-range Analog Timers

## Product Types for T49A

Type	Time Range	Operating Voltage	Part Number		
			Delay SPDT	Delay SPDT+ Instantaneous SPDT	Delay DPDT
T49A	0.1S to 1S	24V AC or 24V DC	T49A1-A01SA024-08	-	T49A1-C01SA024-08
	0.2S to 2S		T49A1-A02SA024-08	-	T49A1-C02SA024-08
	0.6S to 6S		T49A1-A06SA024-08	-	T49A1-C06SA024-08
	0.12S to 12S		T49A1-A12SA024-08	-	T49A1-C12SA024-08
	0.3S to 30S		T49A1-A30SA024-08	-	T49A1-C30SA024-08
	0.6S to 60S		T49A1-A60SA024-08	-	T49A1-C60SA024-08
	0.3S to 3M		T49A1-A03MA024-08	-	T49A1-C03MA024-08
	6S to 6M		T49A1-A06MA024-08	-	T49A1-C06MA024-08
	12S to 12M		T49A1-A12MA024-08	-	T49A1-C12MA024-08
	0.3S to 30M		T49A1-A30MA024-08	-	T49A1-C30MA024-08
	0.01H to 1H		T49A1-A01HA024-08	-	T49A1-C01HA024-08
	0.03H to 3H		T49A1-A03HA024-08	-	T49A1-C03HA024-08
	0.06H to 6H		T49A1-A06HA024-08	-	T49A1-C06HA024-08
	0.12H to 12H		T49A1-A12HA024-08	-	T49A1-C12HA024-08
	0.24H to 24H	T49A1-A24HA024-08	-	T49A1-C24HA024-08	
	0.1S to 1S	110V AC	T49A1-A01SA110-08	-	T49A1-C01SA110-08
	0.2S to 2S		T49A1-A02SA110-08	-	T49A1-C02SA110-08
	0.6S to 6S		T49A1-A06SA110-08	-	T49A1-C06SA110-08
	0.12S to 12S		T49A1-A12SA110-08	-	T49A1-C12SA110-08
	0.3S to 30S		T49A1-A30SA110-08	-	T49A1-C30SA110-08
	0.6S to 60S		T49A1-A60SA110-08	-	T49A1-C60SA110-08
	0.3S to 3M		T49A1-A03MA110-08	-	T49A1-C03MA110-08
	6S to 6M		T49A1-A06MA110-08	-	T49A1-C06MA110-08
	12S to 12M		T49A1-A12MA110-08	-	T49A1-C12MA110-08
0.3S to 30M	T49A1-A30MA110-08		-	T49A1-C30MA110-08	
0.01H to 1H	T49A1-A01HA110-08		-	T49A1-C01HA110-08	
0.03H to 3H	T49A1-A03HA110-08		-	T49A1-C03HA110-08	
0.06H to 6H	T49A1-A06HA110-08		-	T49A1-C06HA110-08	
0.12H to 12H	T49A1-A12HA110-08		-	T49A1-C12HA110-08	
0.24H to 24H	T49A1-A24HA110-08	-	T49A1-C24HA110-08		

# T49A Multi-range Analog Timers

## Product Types for T49A

Type	Time Range	Operating Voltage	Part Number		
			Delay SPDT	Delay SPDT+ Instantaneous SPDT	Delay DPDT
T49A	0.1S to 1S	220V AC to 240V AC	T49A1-A01SA240-08	-	T49A1-C01SA240-08
	0.2S to 2S		T49A1-A02SA240-08	-	T49A1-C02SA240-08
	0.6S to 6S		T49A1-A06SA240-08	-	T49A1-C06SA240-08
	0.12S to 12S		T49A1-A12SA240-08	-	T49A1-C12SA240-08
	0.3S to 30S		T49A1-A30SA240-08	-	T49A1-C30SA240-08
	0.6S to 60S		T49A1-A60SA240-08	-	T49A1-C60SA240-08
	0.3S to 3M		T49A1-A03MA240-08	-	T49A1-C03MA240-08
	6S to 6M		T49A1-A06MA240-08	-	T49A1-C06MA240-08
	12S to 12M		T49A1-A12MA240-08	-	T49A1-C12MA240-08
	0.3S to 30M		T49A1-A30MA240-08	-	T49A1-C30MA240-08
	0.01H to 1H		T49A1-A01HA240-08	-	T49A1-C01HA240-08
	0.03H to 3H		T49A1-A03HA240-08	-	T49A1-C03HA240-08
	0.06H to 6H		T49A1-A06HA240-08	-	T49A1-C06HA240-08
	0.12H to 12H		T49A1-A12HA240-08	-	T49A1-C12HA240-08
	0.24H to 24H	T49A1-A24HA240-08	-	T49A1-C24HA240-08	
	0.1S to 1S	380V AC	T49A1-A01SA380-08	-	T49A1-C01SA380-08
	0.2S to 2S		T49A1-A02SA380-08	-	T49A1-C02SA380-08
	0.6S to 6S		T49A1-A06SA380-08	-	T49A1-C06SA380-08
	0.12S to 12S		T49A1-A12SA380-08	-	T49A1-C12SA380-08
	0.3S to 30S		T49A1-A30SA380-08	-	T49A1-C30SA380-08
	0.6S to 60S		T49A1-A60SA380-08	-	T49A1-C60SA380-08
	0.3S to 3M		T49A1-A03MA380-08	-	T49A1-C03MA380-08
	6S to 6M		T49A1-A06MA380-08	-	T49A1-C06MA380-08
	12S to 12M		T49A1-A12MA380-08	-	T49A1-C12MA380-08
	0.3S to 30M		T49A1-A30MA380-08	-	T49A1-C30MA380-08
	0.01H to 1H		T49A1-A01HA380-08	-	T49A1-C01HA380-08
0.03H to 3H	T49A1-A03HA380-08		-	T49A1-C03HA380-08	
0.06H to 6H	T49A1-A06HA380-08		-	T49A1-C06HA380-08	
0.12H to 12H	T49A1-A12HA380-08		-	T49A1-C12HA380-08	
0.24H to 24H	T49A1-A24HA380-08	-	T49A1-C24HA380-08		

# T49A Multi-range Analog Timers

## Contact Data

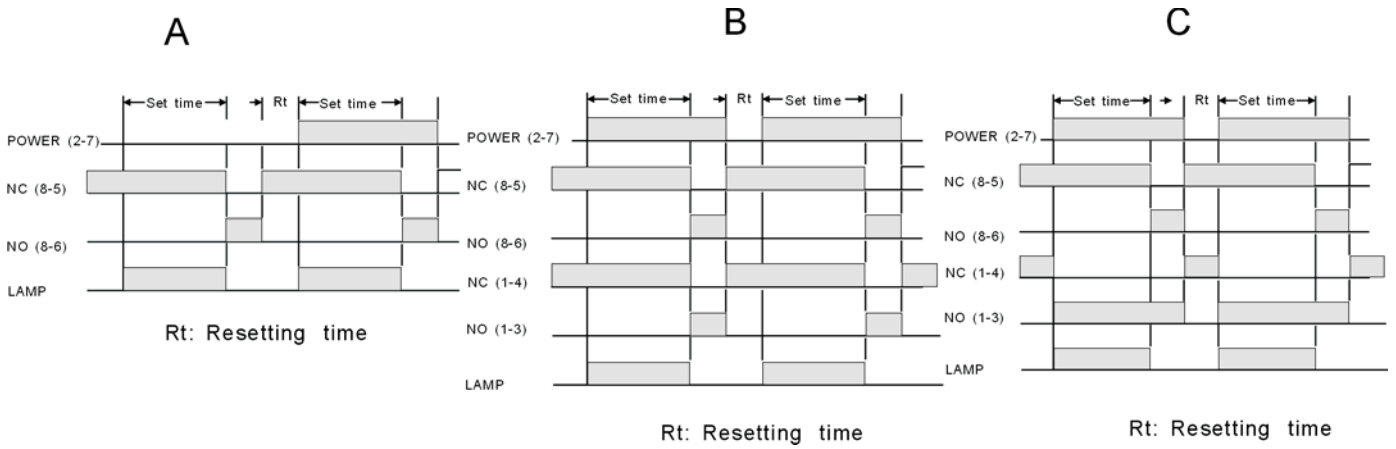
Item \ Mode	1 Form C (SPDT)	2 Form C (DPDT)
Max. Switch Voltage	AC 240V, DC110V	AC 240V, DC110V
Max. Switch Current	10A	5A
Max. Switch Power	AC 1200VA, DC 300W	AC 1200VA, DC 150W
Contact Ratings	10A, 120VAC, Resistive	5A, 240VAC, Resistive
	10A, 28VDC, Resistive	5A, 30VDC, Resistive
	1/4 HP , 120VAC	1/8 HP , 250VAC
	3A, 120AC, Inductive (Cos $\phi$ =0.4)	1.5A, 240AC, Inductive (Cos $\phi$ =0.4)
	3A, 28DC, Inductive (L/R=7 msec)	1.5A, 24DC, Inductive (L/R=7 msec)
	Contact Resistance	100 Milliohms(1A, 6VDC)
Contact Material	AG Alloy	AG Alloy
Mechanical Life	10 Million Operations	10 Million Operations
Electrical Life	100,000 Operations	100,000 Operations

## Specifications

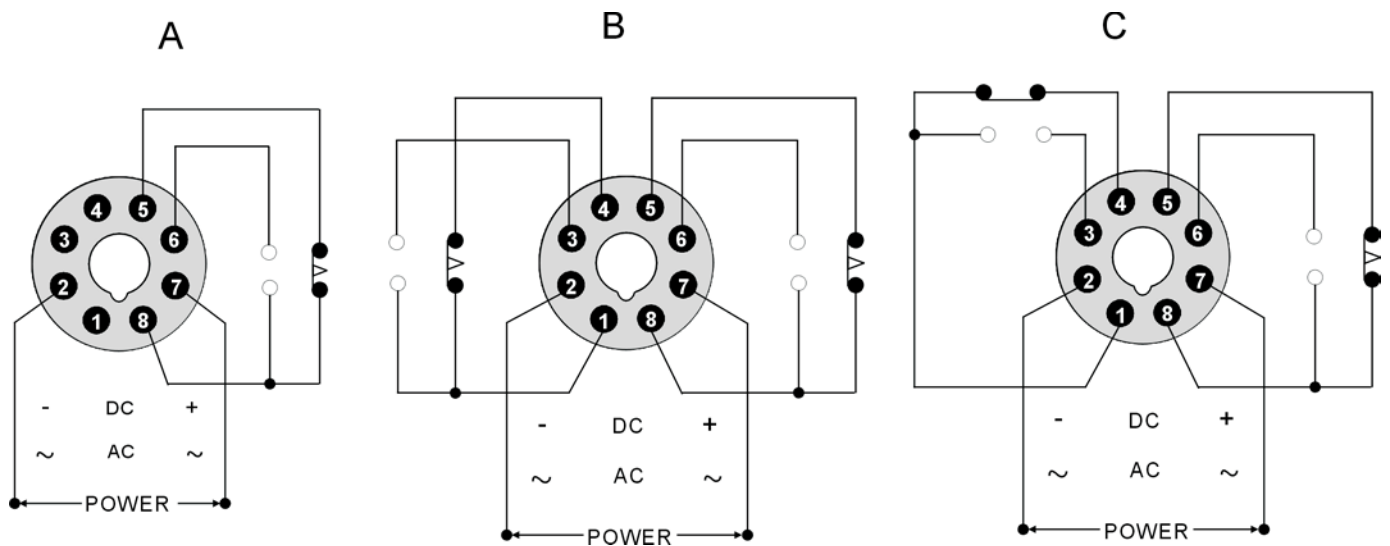
Item \ Mode	T49A	
Time Range	0.1S~24H, 15 Time Ranges	
Operating Voltage	12VAC/DC,24VAC/DC,110VAC,220VAC,240VAC,380VAC	
Allowable Operating Voltage Range	AC: 85 to 11%, DC: 90 to 110%	
Rated Frequency	50Hz/60Hz For AC Operating Type	
Ripple	<10% For DC Operating Type	
Operating Mode	Power ON Delay 0 Setting Instantaneous Output Operation	
Time - Accuracy	Setting Error	$\pm 10\%$ (Max. Setting Time Value)
	Voltage Error	$\pm 1\%$ (At The Operating Changes Between 85 to 110%)
	Temperature Error	$\pm 2\%$ (At 20°C Ambient Temp. At The Range Of -10 To +50°C)
	Operating Time Error	$\pm 0.3\%$
Operating Temperature	-10 To +55C	
Storage Temperature	-30 To +80°C	
Operating Humidity	MAX. 85%RH	
Insulation Resistance	Min. 100MR (At 500V DC)	
Breakdown Voltage	2000Vrms For 1 Min. Between Live And Dead Metal Parts	
	2000Vrms For 1 Min. Between Input And Output	
	2000Vrms For 1 Min. Between Contacts Of Different Poles	
	1000Vrms For 1 Min. Between Contacts Of Same Poles	
Vibration Resistance	Functional	10 To 55Hz: 1 Cycle/Min Double Amplitude Of 0.5mm (10Min On 3 Axes)
	Destructive	10 To 55Hz: 1 Cycle/Min Double Amplitude Of 0.75mm (1H On 3 Axes)
Shock Resistance	Functional	Min. 294m/s <sup>2</sup> (4 times On 3 Axes)
	Destructive	Min. 980m/s <sup>2</sup> (5 times On 3 Axes)
Power Consumption	220V AC	Approx. 7VA
	110V AC	Approx. 3.5VA
	24VAC/DC	Approx. 1.5VA
	12VDC	Approx. 0.6W
Weight	Approx. 220g	

# T49A Multi-range Analog Timers

## Operation Mode



## Terminal Wiring Diagrams



## Dimensions (mm)

### T49A (scale: 1:1)

