TIME DELAY RELAYS

Product Summary

Macromatic offers a wide variety of time delay relays and accessories. Each one has different features and operating characteristics, allowing you to choose the exact product to meet your needs. Our time delay relays are available in either programmable or non-programmable versions. We offer both single or multiple function time delay relays. Choose between SPDT or DPDT relay outputs & solid state outputs for high duty cycle applications. Time delay relays are available as plug-in units for use with industry standard 8 & 11 pin octal sockets. They also come in 2” x 2” encapsulated & 1/16 DIN mounting configurations. Choose between analog or digital-set time delay relays. Refer to the Selection Table on this page for more information.

Product Series		Mounting Configuration	Time Delay Setting & Ranges	Functions	Input Voltages	Output	See Pages
	THR Series Relay Output	2" x 2" Encapsulated Panel Mounted with One Screw	Analog-Set 0.1 SEC - 100 HR	Single-Function	12VDC, 24VAC/DC, 120VAC/DC, 240VAC	10A SPDT Relay	43-49
	THS Series Solid State Output		Analog-Set 0.01 SEC - 100 HR	Single-Function	24-240VAC, 12-48VDC	1A SPNO Solid State	50-53
	THL Series Solid State Inline (Series) Output		Analog-Set 0.01 SEC - 100 HR	Single-Function	240-240VAC & 12-48VDC	1A SPNO Solid State	54-55
	TR-5 Series Standard	Plug-in Utilizing Industry-Standard 8 & 11 Pin Sockets	Analog-Set 0.05 SEC - 2 HR	Single-Function	12VDC, 24VAC/DC, 120VAC/DC, 240VAC	10A DPDT 10A SPDT Relay	56-59 60-61
	TR-6 Series *Time Ranger* Programmable		Analog-Set Multi-Range 0.1 SEC - 24 HR	Single-Function	12VAC/DC, 24VAC/DC, 120VAC/DC, 240VAC	10A DPDT Relay	62-65
	TD-8 Series *Time Ranger* Digital-Set Programmable		Digital-Set Multi-Range 0.1 SEC - 1,023 HR	Multi-Function (16) & Single-Function	12VAC/DC, 24VAC/DC, 120VAC/DC, 240VAC	10A DPDT 10A SPDT Relay	66-68
	TD-7 Series *Time Ranger* Digital-Set Programmable		Digital-Set Multi-Range 0.05 SEC - 999 HR	Multi-Function (10) & Single-Function	12VAC/DC, 24VAC/DC, 120VAC/DC, 240VAC	10A DPDT 10A SPDT Relay	69-71
	SS-6 & SS-8 Series Compact		Analog-Set 0.2 - 300 SEC	Single-Function	12VDC, 24VAC/DC, 120VAC	5A SPDT Relay	76
	TAD Series Digital-Set 1/16 DIN	1/16 DIN (48mm^2)	Digital-Set Multi-Range 0.01 SEC - 9,990 HR	Multi-Function (10)	24-240VAC & 24-240VDC	5A DPDT Relay	72-73
	TAA Series Analog-Set 1/16 DIN		Digital-Set Multi-Range 0.05 SEC - 100 HR	Multi-Function (6)--2 Versions	24-240VAC & 24-240VDC	3A DPDT & SPDT Relay	74-75

TIME DELAY RELAYS

TAA Series
Analog-Set Multi-Function Multi-Range
1/16 DIN Mounting

- 6 field-selectable functions in one unit
- Large dial for setting of time delay
- 50ms to 100 Hours programmable timing range
- Universal 100-240V AC/ 24-240V DC input voltage
- Panel, track or surface mounting
- 1/16 DIN style case (comes with panel-mounting adapter)
- 5A DPDT output contacts
- c UL us CE

MULTI-FUNCTION ◆	INPUT VOLTAGE	PRODUCT NUMBER	WIRING/ SOCKETS ■
Includes Six (6) Functions Built-in (See Page 75 for additional information)	100-240V AC 50/60Hz & 24-240V DC	TAA1U	**SEE DIAGRAMS ON PAGE 75** 8 Pin Octal **(See Below)**
Includes Six (6) Functions Built-in (See Page 75 for additional information)	100-240V AC 50/60Hz & 24-240V DC	TAA2U	**SEE DIAGRAMS ON PAGE 75** 11 Pin Octal **(See Below)**

◆ See Page 75 for additional details on Functions.

■ See below for **Sockets & Accessories.**

Application Data

Voltage Tolerance:
±10% of rated voltage.

Load (Burden):
Less than 2.5 VA

Repeat Accuracy:
±0.01%, ±0.05 seconds (includes variation due to voltage and temperature changes).

Recycle Time:
0.2 seconds maximum.

Temperature:
-10° to 55°C (14° to 131°F)

LED Indicators: One red LED indicates Input Voltage/Timing (flashing) & a second red LED indicates relay status.

Output Contacts:
5A DPDT Resistive @ 250V AC

Life:
Mechanical: 10,000,000 operations
Full Load: 100,000 operations

Approvals: c UL us CE
File #E170213

Sockets & Accessories

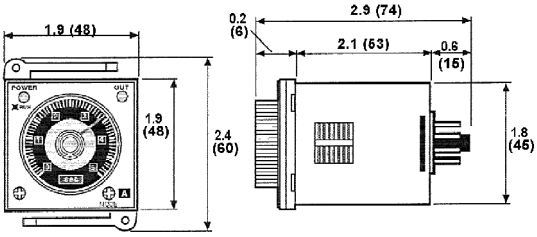
DESCRIPTION	PRODUCT NUMBER
8 Pin Octal Socket	70169-D■
8 Pin Octal Socket (Back Mounting)	SR6P-M08G
11 Pin Octal Socket	70170-D■
11 Pin Octal Socket (Back Mounting)	SR6P-M11G
Panel-Mounting Adaptor	Included

SR6P-M08G

SR6P-M11G

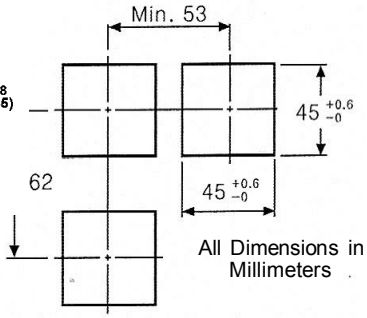
■ For Surface or Track Mounting--See Page 80 for additional information

Dimensions



All dimensions are IN (mm)

PANEL CUTOUT



All Dimensions in Millimeters

MACROMATIC

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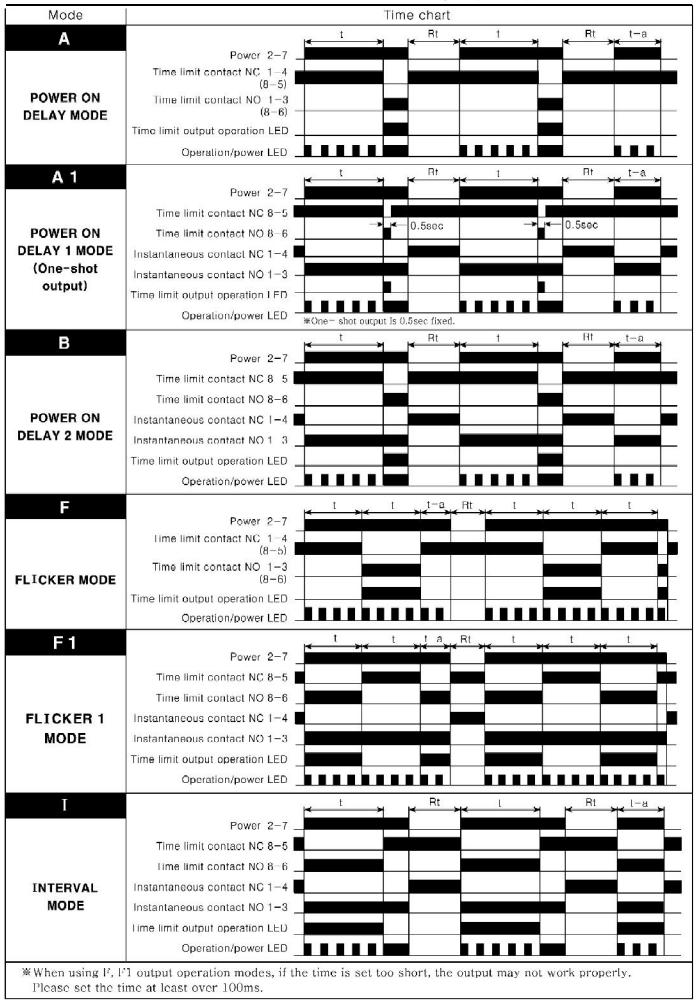
Functions for TAA1U

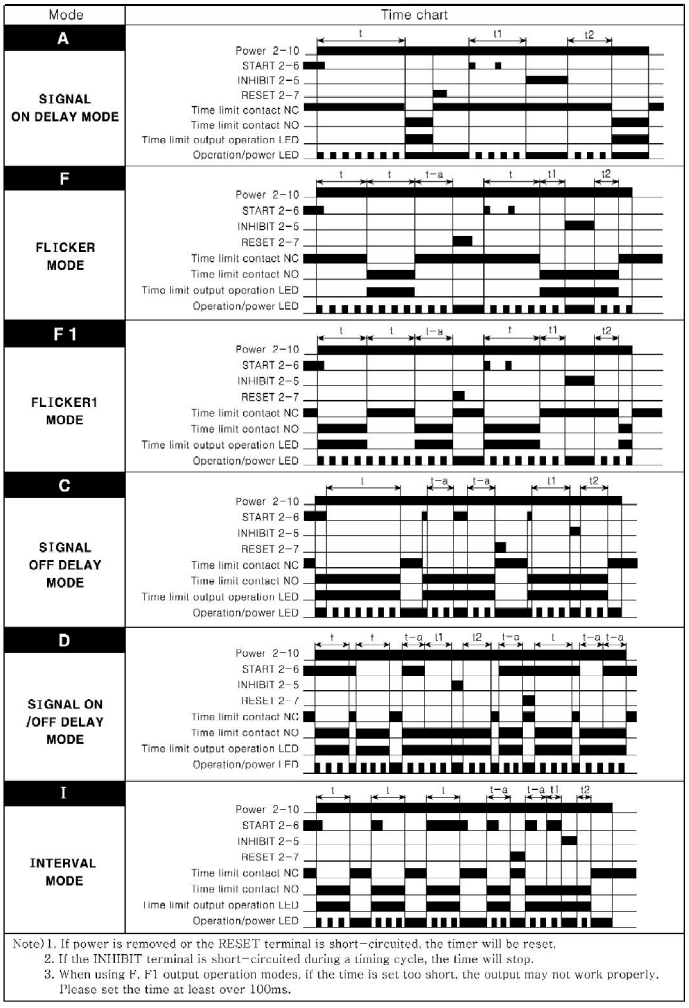
t:Setting time, t > t−a, Rt:Return time(Max. 100ms)



※When using F, F1 output operation modes, if the time is set too short, the output may not work properly. Please set the time at least over 100ms.

Functions for TAA2U

t=t1+t2, t>t−a



Note) 1. If power is removed or the RESET terminal is short−circuited, the timer will be reset.
2. If the INHIBIT terminal is short−circuited during a timing cycle, the time will stop.
3. When using F, F1 output operation modes, if the time is set too short, the output may not work properly. Please set the time at least over 100ms.

TAA1U Functions A, F

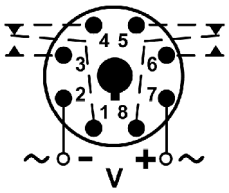


DIAGRAM 134

TAA1U Functions A1, B, F1 & I

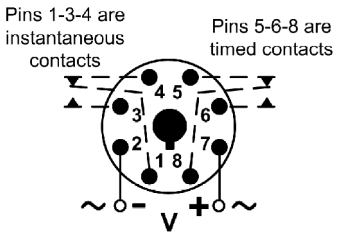


DIAGRAM 182

TAA2U All Functions

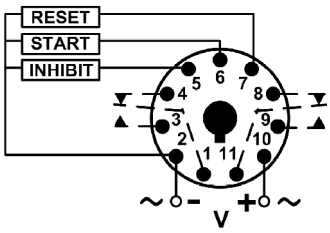


DIAGRAM 183