



# TIME DELAY RELAY

## SOLID STATE

### DELAY ON SINGLE SHOT

## DSO AND DSI SERIES

Highly reliable and accurate, the MASTERTIME series DSO and DSI offer the widest selection of voltages and time ranges on the market today.

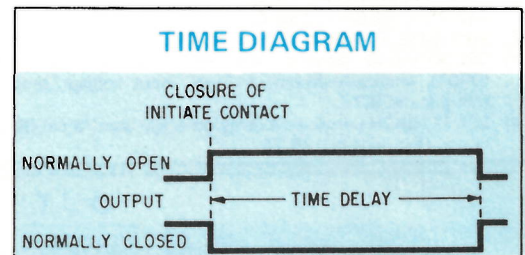
### MODE OF OPERATION – DELAY ON SINGLE SHOT

Upon closure of an external initiate switch (momentary or maintained), the output relay contacts transfer immediately and simultaneously the timing period begins. At the end of the timing period, the output relay contacts return to their original position. Power must be applied to the input terminals constantly. This timer may be reset during the time delay period by removal of input power.

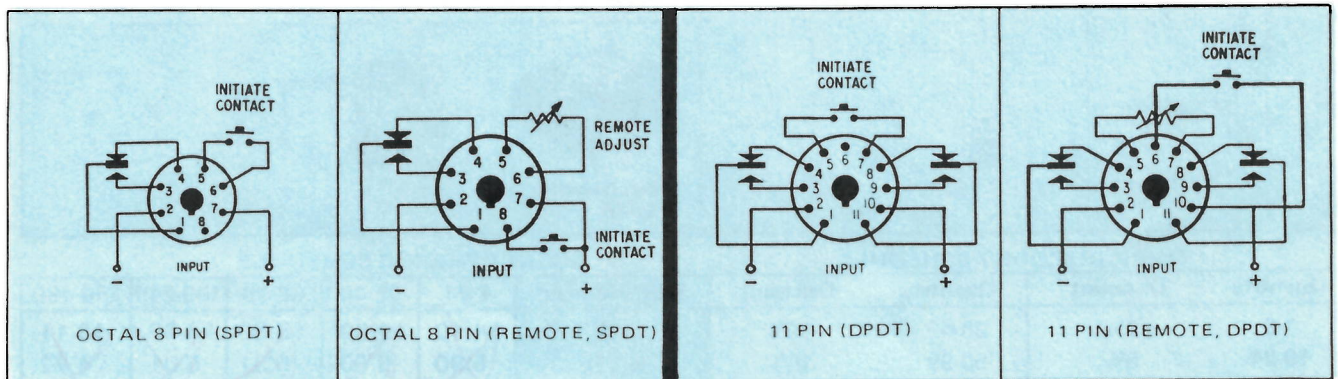


### FEATURES

- ◆ Factory fixed or adjustable time delay from .1 second to 8 hours.
- ◆ Voltage ranges from 12 VAC to 230 VAC and 6 VDC to 110 VDC.
- ◆ Standard plug-in termination – 8 pin or 11 pin.
- ◆ SPDT or SPDT remote in 8 pin base.
- ◆ DPDT or DPDT remote in 11 pin base.
- ◆ Repeatability of  $\pm 3\%$  up to  $\pm 1\%$
- ◆ Polarity reversal protection.
- ◆ Heavy duty output contacts.
- ◆ Compact size.



### CONNECTION DIAGRAM





# SPECIFICATIONS

## ELECTRICAL

1. Accuracy
  - a. Repeatability:  $\pm 3\%$
  - b. Dial setting:  $\pm 10\%$  of full scale
2. Time Delay
  - a. Adjustable: See table below for time ranges.
  - b. Fixed Time delays: Available from .1 sec to 5 sec in .1 sec increments and from 1 sec to 3600 sec in 1 sec increments and from 1 Hr to 8 Hr in 1 Hr increments. Please specify exact delay required.
3. Input
  - a. Allowable variation from nominal voltage:  $\pm 10\%$
  - b. Power consumption: 2 watts
4. Output
  - a. Type: Relay
  - b. Rating: 10 amperes with resistive load @ 115 VAC
  - c. Contacts: SPDT or DPDT
  - d. Life: Mechanical: 10,000,000 operations. Under full load: 1,250,000 operations
5. Protection
  - a. Transient:
    - DC units: 120 volts for 200 usecs, 1% duty cycle
    - AC units: 1240 volts for 200 usecs, 1% duty cycle
  - b. All units are inverse polarity protected
6. Reset Time
  - 100 milliseconds

## ENVIRONMENTAL

1. Temperature
  - a. Operating:  $-10^{\circ}$  to  $+60^{\circ}\text{C}$
  - b. Storage:  $-20^{\circ}$  to  $+85^{\circ}\text{C}$
2. Vibration: 10-55CPS at .062 inch double amplitude
3. Shock: 15 G for 11 milliseconds

## PHYSICAL

1. Weight: Approximately 8 oz.

## SPECIAL FEATURES

1. Repeat Accuracy at  $\pm 1\%$ : Add suffix **A** to part number. Price adder \$7.75.
2. No Blip Unit: Unit may be reset during timing without false transfer of output contacts. Add suffix **B** to part number. Price adder \$3.50.
3. Timer using digital circuits: Add suffix **D** to part number. Price adder \$10.00.
4. Panel Mount: For mounting timer through a panel with 3/8" bushing on potentiometer. Add suffix **L** to part number. Price adder \$1.00.
5. Indicator Light: When timer is energized, light turns on. Add suffix **N** to part number. Price adder \$4.50.
6. Reverse Polarity: 8 pin base 2+, 7-, 11 pin base 2+, 10-. Add suffix **R** to part number. Price adder \$3.50
7. Additional Transient Protection: Add suffix **T** to part number. Price adder \$2.50.
8. Ten Turn Pot Adjustment: Add suffix **Y** to part number. Price adder \$4.50.

## ORDERING INFORMATION

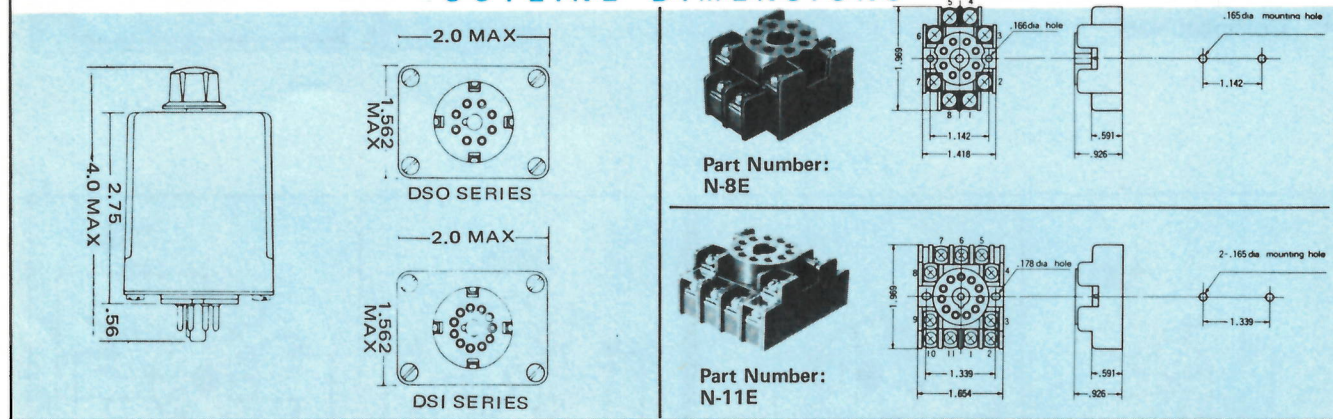
Series	Base Price	Adjustment	Adder	Input Voltage	Adder	Time Range Seconds	Adder
DSO - 8 Pin Termination DSI - 11 Pin Termination		F - Fixed K - Knob L - Lock Shaft R - Remote (Supplied with pot)		12 AC 24 AC 48 AC 115 AC 230 AC 6 DC 12 DC 24 DC 28 DC 48 DC 110 DC		0.1 to 1 0.1 to 2 0.1 to 3 0.2 to 5 0.2 to 10 0.2 to 15 0.6 to 30 0.6 to 60 1.0 to 90 1.0 to 120 4.0 to 180 4.0 to 240 6.0 to 300 6.0 to 360 6.0 to 420 6.0 to 480 10.0 to 540 10.0 to 600 20.0 to 900 20.0 to 1200 0.01 to 1 Hr*	

**EXAMPLE PART NUMBER**

- 1) DSOK115A180 describes delay on single shot timer, 8 pin (SPDT), knob adjustment, 115VAC input voltage, with time range from .4 to 180 seconds. Unit Price \$49.75 + \$1.00 = \$50.75.
- 2) With suffix A added to the above, DSOK115A180A, the cost is \$58.50.
- 3) DSIK115A60D describes delay on single shot timer with digital circuitry, 11 pin (DPDT), knob adjustment, 115VAC input voltage, time range 0.6 to 60 seconds. Unit price \$59.75.
- 4) DSOF115A2H describes a delay on single shot, 8 pin (SPDT), fixed time delay of 2 hours. Unit price is \$85.75.

\*H - H equal 1 hour  
Also available in  
1,2,3,4,5,6,7,8 H.  
Price same as 1Hr

## OUTLINE DIMENSIONS



### TIMER DISCOUNT SCHEDULE

### SOCKET PRICING SCHEDULE

Quantity	Discount	Quantity	Discount	Part Number	1-24	25-49	50-99	100-249	250-499
1-9	0%	25-49	10%	N-8E					
10-24	5%	50-99	15%	N-11E					



# MASTER ELECTRONIC CONTROLS

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