

Series 339

Plug-In Adjustable TDR



WIDE CHOICE OF RANGES

In addition to the short ranges expected of an electronic TDR, the 339 is also available with ranges as long as 10 hours. An unusually versatile timer, the 339 has six dial-selected ranges—from 0.3 sec to 3 hours or 1 sec to 10 hours—and provides dial-adjustable timing periods between 0.075 seconds and 10 hours. A single 339 model thus accommodates the needs of a wide range of applications, allowing the user to select easily and precisely—an appropriate range to permit optimum setting accuracy. The dial face automatically displays the selected range.

CYCLE PROGRESS INDICATION

The 339's LED annunciator provides a unique and extremely effective method of cycle progress indication. Off before timing, the LED blinks at an ever-increasing rate as the cycle progresses; once every 3 1/2 seconds during the first 10% of the cycle, twice during the second 10%, and so on. At time-out, the LED stays on constantly, pulsing at a high rate. (In the 1 and 10-second ranges, the LED is off before timing, steady on during timing, and pulsing on after time-out.)

HIGH ACCURACY

The 339's timing circuit is not a simple RC circuit, but utilizes the sophistication of a proprietary integrated circuit that includes counting technology along with a stable oscillator to provide repeatable time delays.

MULTIPLE TIMING MODES

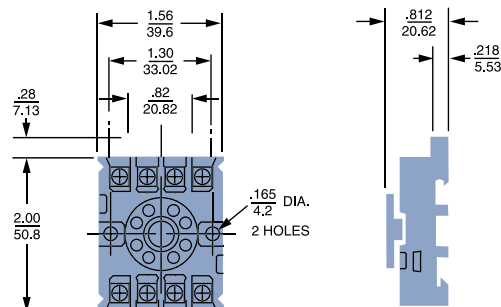
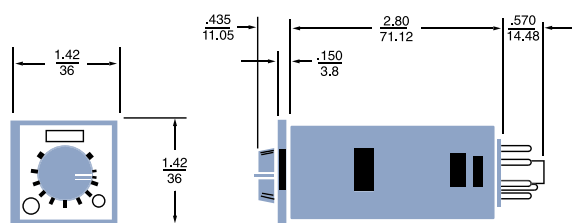
Every 339 can be used for either on-delay or interval timing operation. The timing mode is selectable by a switch on the 339 housing.

OPERATION

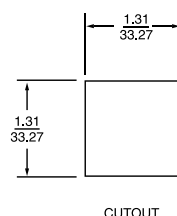
Timing begins when the start switch is closed. This starts an oscillator which runs at a frequency determined by the time setting. A fixed number of counts from the oscillator determines the end of the time cycle. The time required to accomplish this depends on the oscillator frequency. During timing, a LED located on the dial face blinks. For the first ten percent of the cycle, the LED repeatedly blinks once followed by a pause, for the second 10%, it blinks twice and so on indicating the cycle progress. It flashes rapidly and continuously after time out.



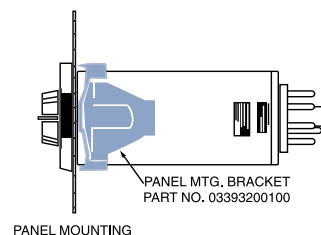
DIMENSIONS
INCHES
MILLIMETERS



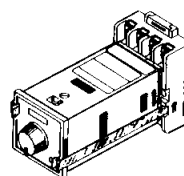
8 PIN OPTIONAL OCTAL SOCKET NO. 00008258500



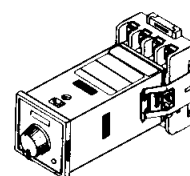
CUTOUT



PANEL MOUNTING



00008258500 SOCKET WITH
03390250300 HOLDDOWNS



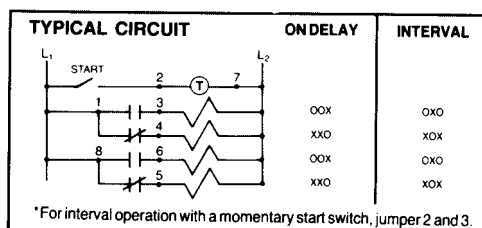
TYPICAL OTHER SOCKET WITH
03390250200 HOLDDOWNS

An economical solid-state TDR with octal plug-in base, the 339 maintains excellent repeat accuracy despite wide voltage and temperature variations, even after long periods of down-time. Two models are available. Each has six dial selected ranges from fractions of a second to as long as 10 hours. Each model has a selectable on-delay or interval timing mode.

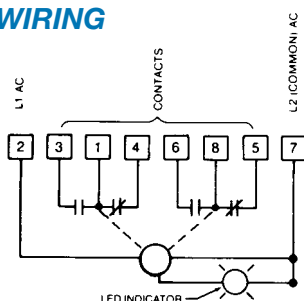
OPERATION

ON-DELAY MODE At time out, the built-in relay transfers its contacts. These contacts remain transferred until the start switch is opened or power is removed by some other means. The 339A then resets and is ready for another cycle.

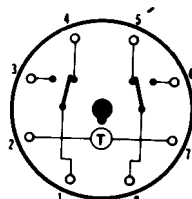
INTERVAL MODE When timing begins, the built-in relay transfers its contacts. The contacts remain transferred until time out. The timer will not start again until the start switch is opened or power is removed by some other means. The 339A then resets and is ready for another cycle.



WIRING



TERMINAL WIRING



ORDERING CODE

BASIC TYPE	339A	359	Q	2	X
RANGE					
359	Six dial-selected ranges (.3 or 3 sec, min, hr.)				
200	Six dial-selected ranges (1 or 10 sec, min, hr.)				
VOLTAGE & FREQUENCY					
Q	120 VAC, 50/60 Hz				
R	240 VAC, 50/60 Hz				
T	24 VAC, 50/60 Hz, 24 VDC				
E	12 VDC				
ARRANGEMENT					
2	On-Delay, Interval mode				
0	Special				
FEATURES					
X	Standard				
K	Special				

ACCESSORIES

- 0000-825-85-00: 8 Pin surface/DIN rail socket
- 0339-025-03-00: Hold down for above socket (2 required)
- 0339-025-02-00: Hold down for other sockets (2 required)
- 0339-320-01-00: Panel mounting bracket
- 0319-261-45-00: Plug-in socket kit (8-pin)

For prices and further information, consult factory

Before starting your design, read the safety statement on the inside back cover of the ATC catalog.

SPECIFICATIONS

FOR MODEL 339A

MODELS

Choice of two multi-range units. All models operate in ON-Delay or interval mode.

LOAD RELAY

TYPE:DPDT 10 AMPS resistive at 30 VDC or 250 VAC (or less)
1/8 HP @ 120 VAC

LIFE: 10 million operations with no load
100,000 operations with:
10 AMPS at 30 VDC (or less) or
10 AMPS at 250 VAC (or less)

CONTACT MATERIAL

Silver Cadmium Oxide

TEMPERATURE RATING

-17° to 60°C (0° to 140°F)

NOISE IMMUNITY

Showering ARC per NEMA ICS 2-230

WEIGHT 2.5 oz. (70g)

MOUNTING

Plug-in octal base; mounts in any position with retaining clips.

OPTIONS: surface-mounting socket

DIN rail mounting socket

panel-mounting adapter kit

plug-on socket kit

rear facing terminal socket

RANGES

Choice of two models
Six dial-selected ranges:
1.0 and 10 sec, min, hr.
or
0.3 and 3 sec, min, hr.

MINIMUM SETTING

3% of range, except 75 m sec on 0.3 sec and 1.0 sec ranges.

REPEAT ACCURACY

Varies as a function of line voltage and temperature but not of reset time

- a. $\pm 0.5\%$ at constant temperature and voltage. (or ± 15 ms. whichever is greater)
- b. $\pm 1\%*$ at constant voltage and full temperature range. (or ± 25 ms. which ever is greater)
- c. $\pm 1.5\%*$ at constant temperature and full voltage range. (or ± 25 ms. whichever is greater)
- d. $\pm 2\%*$ over full voltage and temperature range. (or ± 30 ms, which ever is greater)

Variations of line voltage must be within 95 and 132V; of temperature between -17° and 60°C (0° and 140°F)

*Variation from average actual time

RECYCLE CHARACTERISTICS

The timer can be used as a pulse generator with L1 power wired thru its NC contacts. The pulse will be 35 ms to 90 ms long. (40 m sec typical pulse.)

RESET

- a. 0 to 20 ms power interruption; guaranteed no reset.
- b. 20 ms to 90 ms; it may reset. (40 ms typical reset).
- c. Over 90 ms guaranteed to reset.
The TDR will reset properly and not start timing when subjected to an open start switch leakage of 1.5 mA or less. (Prox switch and Triac drive applications)

POWER REQUIREMENTS

120 VAC:	95 - 132 VAC, 50/60Hz Inrush - .4A Running - .025 A
240 VAC:	190 - 264 VAC, 50/60Hz Inrush - .2A Running - .013A
24 VAC/DC:	19.2 - 26.4 V AC/DC Inrush - .4A Running - .075A
12 V DC:	9.6 - 13.2 V DC Inrush - .25A Running - .10A

APPROVALS

See Agency listing on page 391.