

The ATC 314 is an economical multi-range solid-state TDR with two models; one for off-delay (delay-on-break) and one for interval-on-delay operation. With three dial-selected adjustable ranges, it provides any timing period between 0.035 and 100 SEC with excellent repeat accuracy even with wide changes in voltage, temperature and reset time.

**OFF-DELAY MODEL:** Presuming the AC line is energizing the unit continuously, when the start switch is closed the relay energizes, the pilot light goes on and the unit resets. Opening the start switch begins the timing cycle. A relaxation oscillator runs at a rate determined by the set pot. When the oscillator count is equal to the level set by the range switch, a digital count circuit is satisfied and the unit times out.

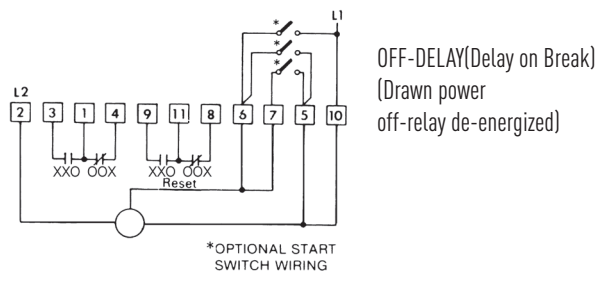
At time out, the timing circuit and relay are de-energized and the pilot light goes off. Closing the start switch resets the unit. After a power failure (or on first startup) the unit will go to the timed out condition (relay de-energized) until the unit is reset by closing the start switch to begin a new cycle.

**INTERVAL-ON-DELAY MODEL:** Timing begins when the start switch is closed; simultaneously the relay is energized and the pilot light goes on. Either a momentary/sustained start or a sustained start input can be used (see wiring). Reset is accomplished by de-energizing the unit. At time-out, the timing circuit and relay are de-energized and the pilot light goes off.

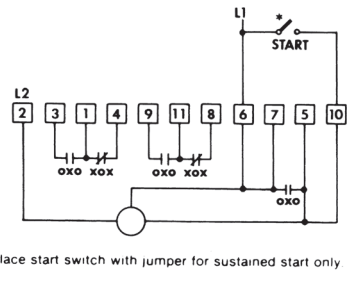


**Plug-In Multi-Range  
Off-Delay/Interval**

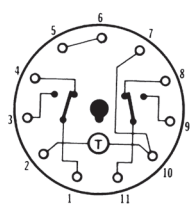
## WIRING



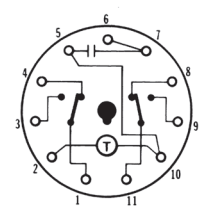
INTERVAL-ON-DELAY  
Momentary or Sustained Start  
Sustained Start\*



## TERMINAL WIRING



OFF DELAY



INTERVAL/ON-DELAY

11 PIN SURFACE MOUNT SOCKET

## MODEL NUMBER

| MODEL NUMBER                                         | 314B |   |   |   |  |
|------------------------------------------------------|------|---|---|---|--|
| <b>RANGE</b>                                         |      |   |   |   |  |
| Three dial-selected ranges<br>(1 SEC,10 SEC,100 SEC) | 134  |   |   |   |  |
| Special                                              | 000  |   |   |   |  |
| <b>VOLTAGE &amp; FREQUENCY</b>                       |      |   |   |   |  |
| 120 VAC, 50/60 Hz                                    |      | Q |   |   |  |
| 240 VAC, 50/60 Hz                                    |      | R |   |   |  |
| Special                                              |      | K |   |   |  |
| <b>ARRANGEMENT</b>                                   |      |   |   |   |  |
| Off-Delay mode                                       |      |   | 2 |   |  |
| Interval mode                                        |      |   | 3 |   |  |
| <b>FEATURES</b>                                      |      |   |   |   |  |
| Standard                                             |      |   |   | C |  |
| Special                                              |      |   |   | K |  |

## ACCESSORIESA

|                                    |               |
|------------------------------------|---------------|
| Surface Mounting Socket            | 000-825-63-00 |
| Retaining clip for use with socket | 319-025-06-00 |
| Panel mount bezel kit              | 319-261-44-00 |
| Panel mount socket kit             | 314-260-07-00 |

## SPECIFICATIONS

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                          |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MODELS</b>                      | OFF-Delay mode<br>Interval mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                          |
| <b>RANGES AND MINIMUM SETTINGS</b> | Three dial-selected adjustable ranges<br>0.035–1.0 SEC<br>0.18–10 SEC<br>1.8–100 SEC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                          |
| <b>LOAD RELAY CONTACT RATING</b>   | TYPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DPDT, hard wired                                                                                                                                                                                                                                                                         |
|                                    | LIFE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50,000,000 operation (no load)                                                                                                                                                                                                                                                           |
|                                    | CONTACT RATING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7A resistive at 120 or 240V 1/10 HP at 120V                                                                                                                                                                                                                                              |
| <b>TEMPERATURE RATING</b>          | 32 to 158° F (0 to 70° C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                          |
| <b>MOUNTING</b>                    | PLUG-IN 11-PIN BASE; mounts in any position<br>OPTIONAL: surface-mounting socket panel-mounting bezel kit plug-on socket kit                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                          |
| <b>POWER REQUIREMENTS</b>          | 120 VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 95 to 132V, 50/60 Hz, 0.02A                                                                                                                                                                                                                                                              |
|                                    | 240 VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 190 to 264V, 50/60 Hz, 0.02A                                                                                                                                                                                                                                                             |
| <b>SETTING ACCURACY</b>            | 10% at full scale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                          |
| <b>REPEAT ACCURACY</b>             | Varies as a function of line voltage and temperature but not of reset time (see Recycle Characteristics)<br>± 1% of setting or 2.0 mSEC, when temperature is constant and line voltage is constant or varies within limits*<br>± 4% of setting or 2.0 mSEC, when line voltage is constant and temperature varies within limits*<br>± 6% of setting or 2.0 mSEC, when line voltage and temperature vary within limits*<br>*Variations of line voltage must be within 95 and 132V; of temperature between 0° and 70°C (32° and 158°F); and reset/start time must be at least 75 mSEC. |                                                                                                                                                                                                                                                                                          |
| <b>RESET TIME</b>                  | OFF-DELAY: 75 mSEC during timing or after time-out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                          |
| <b>START</b>                       | INTERVAL-ON-DELAY:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 45 mSEC (for momentary start wiring)                                                                                                                                                                                                                                                     |
| <b>POWER INTERRUPTION</b>          | OFF-DELAY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A power failure over 5 mSEC during timing will cause relay drop-out. If power is restored in up to 75 mSEC, the unit will re-energize its relay and continue timing. If the power loss is over 75 mSEC the unit will lock in to the timed-out (relay de-energized) position until reset. |
|                                    | INTERVAL-ON-DELAY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A power failure over 5 mSEC causes relay drop-out. Restoring power in up to 75 mSEC will re-energize the relay and timing will continue. A power loss over 75 mSEC will always reset the timer fully.                                                                                    |
| <b>HOUSING</b>                     | Dust, moisture and impact-resistant molded plastic case                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                          |
| <b>WEIGHT</b>                      | NET: 6 oz.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SHIPPING: 10 oz.                                                                                                                                                                                                                                                                         |

## DIMENSIONS (INCHES/MILLIMETERS)

