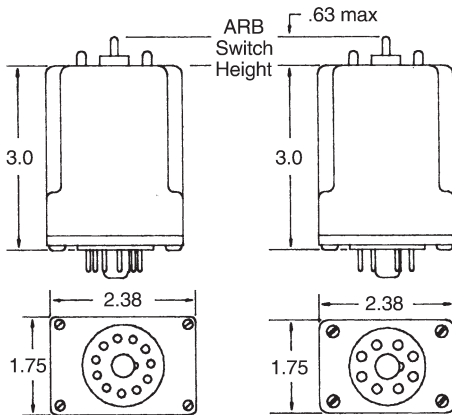


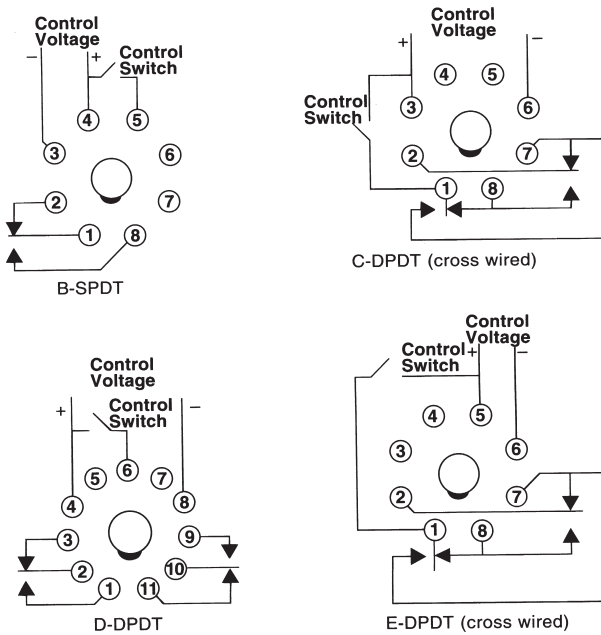


Duplexor

**DIMENSIONS** (INCHES)



**WIRING**



The **Duplexor** is used in control panels where **two loads** are required to alternate to provide equal run time on the loads. The alternating action is initiated by a control switch, which is common with one side of the control voltage. The output contacts will change states each time the control switch is opened, thus alternating the two loads. The LED indicators show the position of the output relay.

The **ARA Series** is the standard **Duplexor** providing automatic alternating sequence. The **ARB** has the automatic sequencing feature plus the option of locking it into one sequence. A three position switch permits the field selection of normal duplexing action, locking in the A-B sequence, or B-A sequence.

**SPECIFICATIONS**

|                               |  |
|-------------------------------|--|
| <b>CONTROL VOLTAGE</b>        | 24, 120 VAC/DC, 208, 240, 50/60Hz,   |
| <b>CONTROL SWITCH CURRENT</b> | 1 mA   |
| <b>POWER REQUIRED</b>         | 3 VA (Approximately)   |
| <b>DUTY CYCLE</b>             | Continuous   |
| <b>LIFE EXPECTANCY</b>        | Mechanical 10,000,000 Operations (Minimum)<br>Electrical 100,000 Operations @ Rated Load                 |
| <b>INDICATORS</b>             | LED Shows Output Position  |
| <b>TEMPERATURES RATING</b>    | Operate -4° to 131°F (-20° to +55°C)<br>Storage -40° to 185°F (-40° to +85°C)                            |
| <b>CONTACT RATING</b>         | 10 Amps @ 240 VAC, Resistive 1/8 hp @ 120 VAC<br>1/4 hp @ 240 VAC Inductive, 360 VA @ 240 VAC, Inductive |
| <b>ENCLOSURE</b>              | "A" Lexan® Dust Cover  |
| <b>TERMINATIONS</b>           | Industrial Plug-in   |
| <b>WEIGHT</b>                 | 4.5 oz.  |

**MODEL NUMBER**

|                                  |    |     |   |   |  |   |
|----------------------------------|----|-----|---|---|--|---|
| <b>MODEL NUMBER</b>              | AR |     |   | A |  | A |
| <b>TYPE OF ALTERNATING RELAY</b> |    |     |   |   |  |   |
| Standard Duplexor                | A  |     |   |   |  |   |
| Special Function Duplexor        | B  |     |   |   |  |   |
| <b>CONTROL VOLTAGE</b>           |    |     |   |   |  |   |
| 24 VAC/DC                        |    | 24  |   |   |  |   |
| 120 VAC/DC                       |    | 120 |   |   |  |   |
| 208 VAC                          |    | 208 |   |   |  |   |
| 240 VAC                          |    | 240 |   |   |  |   |
| <b>TYPE OF VOLTAGE</b>           |    |     |   |   |  |   |
| VAC or VAC/DC                    |    |     | A |   |  |   |
| <b>CONTACT CONFIGURATION</b>     |    |     |   |   |  |   |
| SPDT                             |    |     |   | B |  |   |
| DPDT (Cross Wired)               |    |     |   | C |  |   |
| DPDT                             |    |     |   | D |  |   |
| DPDT (Cross Wired)               |    |     |   | E |  |   |
| <b>ENCLOSURE STYLE</b>           |    |     |   |   |  |   |
|                                  |    |     |   |   |  | A |

## ALTERNATING RELAYS

ATC-Diversified Electronics offers a wide variety of models for various staging requirements. The different models available are: **Duplexors, Triplexors, Quadraplexors, Special Function, and Expandable Alternating Relays.**

The **Alternating Relay** is used in multiple load installations to assure equal run time on all loads. They also allow for the addition of more capacity in the event of excess load requirements. The Alternating Relay provides equal run time on two or more loads by alternating the sequence in which the loads are allowed to start up. In each case, the alternating action is initiated each time the control switch across designated terminal opens. The control switch may be a float, a thermostat, a pressure switch, or a timer contact.

## ALTERNATING CONTROLLERS

The **ARM Series, Alternating Controllers**, are used in multiple load installations to assure equal run time on all loads. They also allow for the addition of more capacity in the event of excess load requirements. The Alternating Controllers provide equal run time on two or more loads by alternating the sequence in which the loads are allowed to start up.

All **ARM** models feature **intrinsically safe inputs** and logic that allows the outputs to operate even if one of the inputs fails to open or close. For example: if the off switch fails to close, the lead load will not energize until both the lead and the lag switches close. An inrush delay on all models reduces line sags by preventing multiple loads from energizing simultaneously.

## FEATURE MATRIX

| Model Number | NUMBER OF LOADS SEQUENCED |   |   | ENCLOSURE STYLE |   | EXPANDABLE | EXTERNAL CLOCKING | AUTOMATIC ALTERNATING | FIELD SELECTABLE SEQUENCING | UL/CANADIAN UL RECOGNIZED | UL LISTED | CSA CERTIFIED |
|--------------|---------------------------|---|---|-----------------|---|------------|-------------------|-----------------------|-----------------------------|---------------------------|-----------|---------------|
|              | 2                         | 3 | 4 | A               | E |            |                   |                       |                             |                           |           |               |
| ARA-XXX-ABA  | ●                         |   |   | ●               |   |            |                   | ●                     |                             | ●                         |           | ●             |
| ARA-XXX-ACA  | ●                         |   |   | ●               |   |            |                   | ●                     |                             | ●                         |           | ●             |
| ARA-XXX-ADA  | ●                         |   |   | ●               |   |            |                   | ●                     |                             | ●                         |           | ●             |
| ARA-XXX-AEA  | ●                         |   |   | ●               |   |            |                   | ●                     |                             | ●                         |           | ●             |
| ARA-XXX-AFE  |                           | ● |   |                 | ● |            | ●                 | ●                     |                             |                           | ●         | ●             |
| ARA-XXX-AGE  |                           |   | ● |                 | ● |            | ●                 | ●                     |                             |                           | ●         | ●             |
| ARA-120-AHE  |                           | ● |   |                 | ● |            | ●                 | ●                     |                             |                           |           |               |
| ARA-120-AJE  |                           | ● |   |                 | ● |            | ●                 | ●                     | ●                           |                           |           |               |
| ARA-120-AME  | ●                         | ● |   |                 | ● | ●          | ●                 | ●                     |                             |                           |           |               |
| ARA-120-ANE  |                           | ● | ● |                 | ● | ●          | ●                 | ●                     |                             |                           |           |               |
| ARB-XXX-ABA  | ●                         |   |   | ●               |   |            |                   | ●                     | ●                           | ●                         |           | ●             |
| ARB-XXX-ACA  | ●                         |   |   | ●               |   |            |                   | ●                     | ●                           | ●                         |           | ●             |
| ARB-XXX-ADA  | ●                         |   |   | ●               |   |            |                   | ●                     | ●                           | ●                         |           | ●             |
| ARB-XXX-AEA  | ●                         |   |   | ●               |   |            |                   | ●                     | ●                           | ●                         |           | ●             |
| ARC-XXX-AAA  | ●                         |   |   | ●               |   |            |                   | ●                     |                             | ●                         |           |               |
| ARD-XXX-AAA  | ●                         |   |   | ●               |   |            |                   | ●                     | ●                           | ●                         |           |               |
| AUC-XXX-AAA  | ●                         |   |   | ●               |   |            |                   | ●                     |                             |                           | ●         |               |
| AUD-XXX-AAA  | ●                         |   |   | ●               |   |            |                   | ●                     | ●                           |                           | ●         |               |

## FEATURE MATRIX

| Model Number | NUMBER OF LOADS SEQUENCED |   |   | STYLE SURFACE MOUNT | PANEL MOUNT | AUTOMATIC ALTERNATING | SELECTABLE SEQUENCING | OUTPUT LOGIC (SOSO) | OUTPUT LOGIC (FOSO) | OMIT | LEAD SELECT | UL LISTED 913 |
|--------------|---------------------------|---|---|---------------------|-------------|-----------------------|-----------------------|---------------------|---------------------|------|-------------|---------------|
|              | 2                         | 3 | 4 |                     |             |                       |                       |                     |                     |      |             |               |
| ARM-XXX-AAE  |                           | ● |   | ●                   |             | ●                     |                       | ●                   |                     |      |             | ●             |
| ARM-XXX-AAEP |                           | ● |   | ●                   | ●           | ●                     |                       | ●                   |                     |      |             | ●             |
| ARM-XXX-ABE  |                           | ● |   | ●                   |             | ●                     |                       |                     | ●                   |      |             | ●             |
| ARM-XXX-ABEP |                           | ● |   | ●                   | ●           | ●                     |                       |                     | ●                   |      |             | ●             |
| ARM-XXX-ACE  |                           | ● |   | ●                   |             | ●                     | ●                     | ●                   |                     | ●    | ●           | ●             |
| ARM-XXX-ACEP |                           | ● |   | ●                   | ●           | ●                     | ●                     | ●                   |                     | ●    | ●           | ●             |
| ARM-XXX-ADE  |                           | ● |   | ●                   |             | ●                     | ●                     |                     | ●                   |      | ●           | ●             |
| ARM-XXX-ADEP |                           | ● |   | ●                   | ●           | ●                     | ●                     |                     | ●                   |      | ●           | ●             |
| ARM-XXX-AFE  | ●                         |   |   | ●                   |             | ●                     | ●                     | ●                   | ●                   |      | ●           | ●             |
| ARM-XXX-AFEP | ●                         |   |   | ●                   | ●           | ●                     | ●                     | ●                   | ●                   |      | ●           | ●             |
| ARM-XXX-AGE  |                           |   | ● | ●                   |             | ●                     |                       | ●                   |                     |      |             | ●             |
| ARM-XXX-AGEP |                           |   | ● | ●                   | ●           | ●                     |                       | ●                   |                     |      |             | ●             |
| ARM-XXX-AHE  |                           |   | ● | ●                   |             | ●                     |                       |                     | ●                   |      |             | ●             |
| ARM-XXX-AHEP |                           |   | ● | ●                   | ●           | ●                     |                       |                     | ●                   |      |             | ●             |

