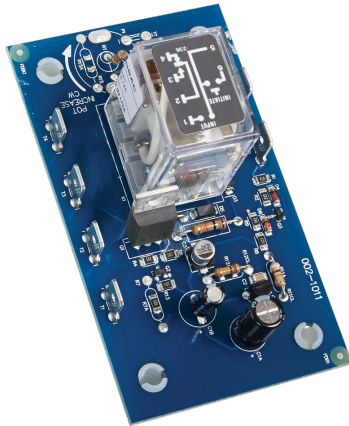


ORB SERIES



Description

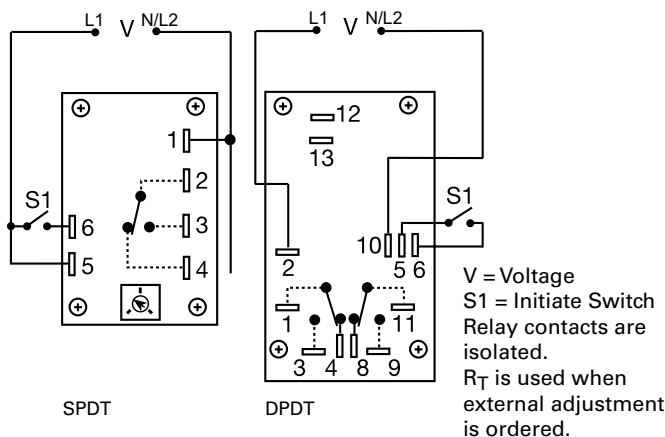
The ORB Series' open PCB construction offers the user good economy without sacrificing performance and reliability. The output relay is available in isolated, 10A, DPDT or SPDT forms. The time delay may be ordered as factory fixed, onboard knob, or external adjustment. All connections are 0.25 in. (6.35 mm) male quick connect terminals.

Operation (Delay-on-Break)

Input voltage must be applied before and during timing. Upon closure of the initiate switch, the output relay energizes. The time delay begins when the initiate switch is opened (trailing edge triggered). The output remains energized during timing. At the end of the time delay, the output de-energizes. The output will energize if the initiate switch is closed when input voltage is applied.

Reset: Reclosing the initiate switch during timing resets the time delay. Loss of input voltage resets the time delay and output.


Wiring Diagram





Features & Benefits


| FEATURES | BENEFITS |
|--|--|
| Open PCB construction | Reduces cost for OEM applications |
| Analog circuitry | Repeat accuracy + / - 2%, Factory calibration + / - 10% |
| Isolated, 10A, SPDT or DPDT output contacts | Allows control of loads for AC or DC voltages |
| Line voltage initiation | Separate control voltage is not required for operation |

Accessories

 **P1004-12, P1004-12-X Versa-Pot**
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.

 **P0700-7 Versa-Knob**
Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.

 **P1015-64 (AWG 14/16) Female Quick Connect**
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.

 **P1015-18 Quick Connect to Screw Adapter**
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

Ordering Information

| MODEL | INPUT VOLTAGE | ADJUSTMENT | TIME DELAY | OUTPUT FORM |
|------------|---------------|------------|------------|-------------|
| ORB120A160 | 120VAC | Fixed | 60s | SPDT |
| ORB120A25 | 120VAC | Onboard | 3 - 300s | SPDT |
| ORB24A11D | 24VAC | Fixed | 1s | DPDT |
| ORB24A21D | 24VAC | Onboard | 0.05 - 3s | DPDT |
| ORB24A25 | 24VAC | Onboard | 3 - 300s | SPDT |

If you don't find the part you need, call us for a custom product 800-843-8848

ORB SERIES

Specifications

Time Delay

Type Analog circuitry
Range 0.05 - 300s in 5 adjustable ranges or fixed
Repeat Accuracy ±2% or 20ms, whichever is greater
Tolerance (Factory Calibration) Adjustable: guaranteed range
 Fixed: ±10%

Reset Time ≤ 50ms
Initiate Time ≤ 70ms
Time Delay vs Temp. & Voltage ≤ ±10%

Input

Voltage 24, 120, or 230VAC
Tolerance
24VAC -15% - 20%
120 & 230VAC -20% - 10%
AC Line Frequency 50/60 Hz
Power Consumption 2.25W

Output

Type Electromechanical relay
Form Isolated, SPDT or DPDT
Rating 10A resistive @ 120/240VAC & 28VDC;
 1/3 hp @ 120/240VAC
Life Mechanical - 1x10⁷; Electrical - 1x10⁶

Protection

Isolation Voltage ≥1500V RMS input to output

Mechanical

Mounting Surface mount with four #6 (M3.5 x 0.6) screws
Dimensions **H** 53.8 mm (2.12"); **W** 93.7 mm (3.69");
D 47.8 mm (1.88")

Termination 0.25 in. (6.35 mm) male quick connect terminals

Environmental

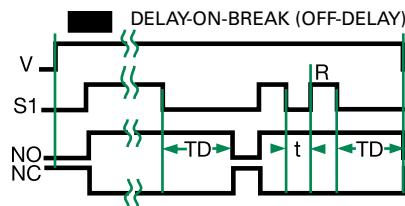
Operating/Storage Temperature -20° to 65°C / -30° to 85°C
Weight ≈ 2.7 oz (77 g)

Selection Guides

| R _T Selection Chart | | | | | |
|--------------------------------|-----|-----|-----|-----|--------------------------|
| Desired Time Delay* | | | | | R _T Megohm |
| Seconds | | | | | |
| 1 | 2 | 3 | 4 | 5 | |
| 0.05 | 0.5 | 0.6 | 1.2 | 3.0 | 0.0 |
| 0.5 | 5.0 | 10 | 20 | 50 | 0.5 |
| 1.0 | 10 | 20 | 40 | 100 | 1.0 |
| 1.5 | 15 | 30 | 60 | 150 | 1.5 |
| 2.0 | 20 | 40 | 80 | 200 | 2.0 |
| 2.5 | 25 | 50 | 100 | 250 | 2.5 |
| 3.0 | 30 | 60 | 120 | 300 | 3.0 |

* When selecting an external R_T add at least 20% for tolerance of unit and the R_T.

Function Diagram



V = Voltage
 S1 = Initiate Switch
 NO = Normally Open Contact
 NC = Normally Closed Contact
 TD = Time Delay
 t = Incomplete Time Delay
 R = Reset
 = Undefined Time