

# ATR Thermal Circuit Protector for Equipment



## Specifications:

Current Ratings: 0.5A - 16A, Standard Ratings Available  
 Rated Voltage: 240 Vac, 50/60HZ, 32Vdc, 24Vdc (VDE)  
 Resettable Overload Capacity:  $8 \times I_n$  for  $< 6A$ ,  
 $6 \times I_n$  or 60A max.  $\geq 6A$

Operating Temperature: 60°C Max. Ambient  
 Max. Interrupting Capacity: 1000A  
 Insulation Resistance:  $>100$  megohms  
 Dielectric Strength: 1.5 KV for 1 min. (per IEC 60934)  
 Operational Life: 1000 Cycles @  $2 \times I_n$

Designed to meet: Shock: per MIL-STD-202, method 213,  
 test condition I  
 Vibration: per MIL-STD-202, method 204  
 test condition A

**Warranty:** 24 months from date of  
 manufacture, as marked on unit

## Airpax Expands Offering

Airpax, a global leader in the supply of power protection products, has expanded its offering to include the new ATR thermal circuit protector for equipment. The ATR is a single pole, thermally operated overload protector with a snap-acting trip mechanism that provides reliable, trip-free operation on current overloads.

The ATR comes with an unequalled 24-month warranty.

Please contact Airpax for assistance in applying the ATR thermal circuit protector to meet your power protection needs.

**AIRPAX**  
[www.airpax.net](http://www.airpax.net)

Airpax Corporation  
 807 Woods Road  
 Cambridge, Maryland 21613 USA  
 Tel: 410.228.1500 Fax: 410.228.3456

# AIRPAX

**Application:** Typical applications include power strips, single-phase motors, transformers, solenoids, UPS, etc.

**Operation:** The trip mechanism of the circuit protector is designed to open the contacts in the event of a current flow in excess of the rated current and in accordance with the time/current characteristics of the device. A bimetal strip deflects and releases the latch mechanism when heated by an overload. The strip has the advantage of being immune to high inrush currents and line transients. The contacts open and close with a positive snap action, and the tripped state is clearly indicated by the protruding reset button.

**Shunt Terminal (Option N):** Available on units of up to 6 amps equipped with a heater winding, an optional additional terminal can be provided as a parallel circuit to the main current-sensing circuit. The shunt circuit between terminals 1 and 3 may be used for any signal that may be required in addition to the main circuit. However, since the circuit makes use of the bimetal strip as a current-carrying path, the trip time of the circuit protector may be slightly influenced.

**Time/Current Characteristics:** The standard characteristic is valid for an ambient temperature of 23°C. However, if the device is to be used in an ambient temperature other than 23°C, an allowance must be made when selecting the current rating. See the following guidelines:

### Ambient Temperature Correction Factor

| Ambient Temp. (°C)    | -20 | -5   | 0   | +10  | +20 | +30  | +40  | +50 | +60 |
|-----------------------|-----|------|-----|------|-----|------|------|-----|-----|
| Multiplication Factor | 0.8 | 0.88 | 0.9 | 0.96 | 1   | 1.05 | 1.12 | 1.2 | 1.3 |

### Example:

Normal Continuous Current:  
 1.8 A  
 Ambient Temp.:  
 40°C  
 Multiplication Factor:  
 1.12  
 Recommended Rating:  
 $1.8 \times 1.12 = 2.016$   
 Select the Nearest Rating:  
 2 A

### Approvals:



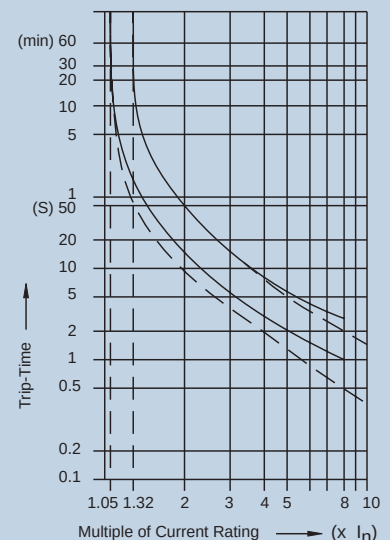
Up to 16A



Up to 12A

**RoHS  
Compliant**

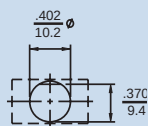
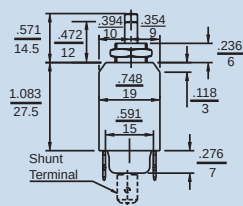
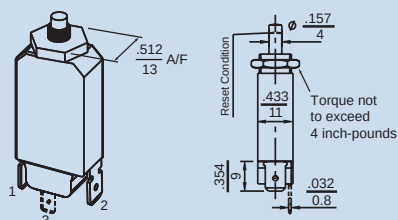
### Operating Characteristics:



Rated Current  
 —————  $< 6A$   
 —————  $\geq 6A$   
 Ambient Temperature  
 23°C

inch  
mm

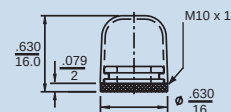
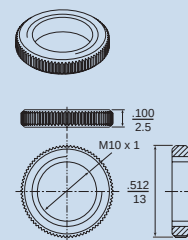
### C - Central Nut Mounting



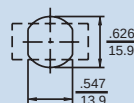
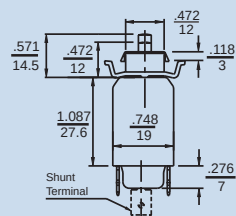
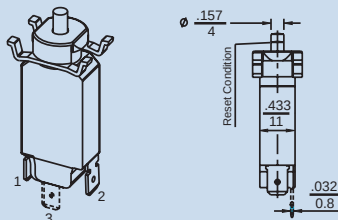
**Protective Cover:**  
Dust/Splash (IP54)  
P/N 053-000-0001



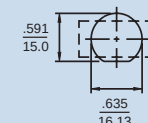
**Knurled Nut:**  
**P/N 053-000-0002**



## W - Wing Clip Mounting

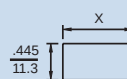
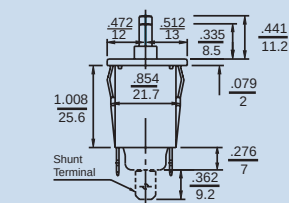
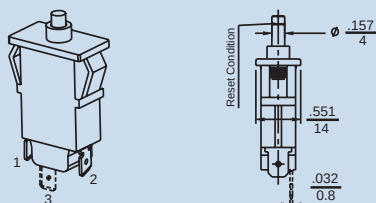


### “W” Type Double “D” Panel Cutout



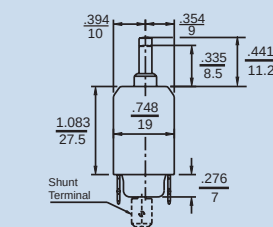
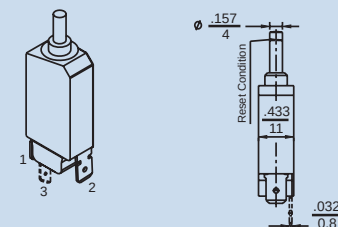
**“D” Type  
Single “D”  
Panel Cutout**

### S - Snap-in Mounting

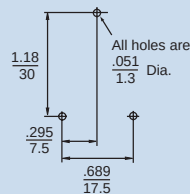
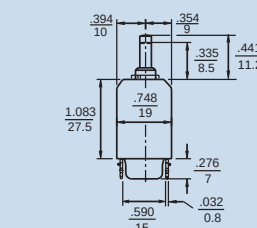
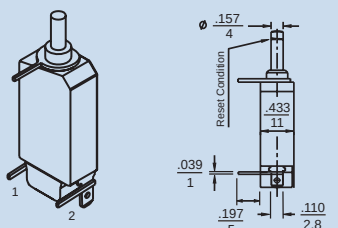


| Panel Thickness | 'X'  |
|-----------------|------|
| .032            | .862 |
| .039            | .866 |
| .059            | .870 |
| .079            | .878 |
| .118            | .890 |

### B - Integral Mounting



## P - PCB Mounting



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www.airpax.net

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807 Woods Road  
Cambridge, Maryland  
21613 USA  
Tel: 410.228.1500  
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|                  |                                                |
|------------------|------------------------------------------------|
| 1 First Decision |                                                |
| Type             |                                                |
| ATR11            | Single pole, series, thermal circuit protector |

**ATR11 - C - X - 63 - R - 7.0A**

|                                                             |                       |
|-------------------------------------------------------------|-----------------------|
| <b>6</b>                                                    | <b>Sixth Decision</b> |
| Standard Current Ratings*                                   |                       |
| 0.5, 0.9, 1.0, 1.2, 1.5, 1.8, 2.0, 2.2, 2.5, 2.7, 3.0, 3.3, |                       |
| 4.0, 5.0, 6.0, 6.5, 7.0, 8.0, 9.0, 10.0, 12.0, 15.0, 16.0   |                       |
| *For other ratings, please consult the factory.             |                       |

Note:  
Terminals 1 & 2 are standard for current ratings  $\leq 6A$   
Terminals 1 & 3 are standard for current ratings  $> 6A$   
Terminals 1 & 2 are optional for current ratings  $\leq 8A$

|          |                        |
|----------|------------------------|
| 2        | <b>Second Decision</b> |
| Mounting |                        |
| C        | Central hex nut        |
| W        | Wing clips             |
| D        | Wing clips             |
| S        | Snap-in                |
| B        | Integral               |
| P        | PCB                    |

| 3 Third Decision       |                |
|------------------------|----------------|
| Terminal Configuration |                |
| X                      | Terminal 1 & 2 |
| Y                      | Terminal 1 & 3 |
| N                      | Shunt Terminal |

|                   |                      |
|-------------------|----------------------|
| 4 Fourth Decision |                      |
| Terminal          |                      |
| 63                | .250 Q.C. terminal   |
| 48                | .187 Q.C. terminal   |
| 28                | .110 Q.C. terminal   |
| PCB               | .040 solder terminal |

|                    |                       |
|--------------------|-----------------------|
| 5                  | <b>Fifth Decision</b> |
| Reset Button Color |                       |
| R                  | Red                   |
| B                  | Black                 |
| W                  | White                 |
| RB                 | Red w/trip band       |
| BB                 | Black w/trip band     |
| WB                 | White w/trip band     |