

CARDGARD™ Circuit Protectors

Airpax Corporation now offers a unique way to protect circuits and expensive circuit components. The new CARDGARD™ circuit protector is a miniature, thermal type current sensing overload protector. It is similar in size to a sugar cube (approximately $\frac{3}{4}$ " x $\frac{1}{4}$ " x $\frac{1}{2}$ ") and weighs only 1.8 grams.

In addition to its small size, CARDGARD™ offers several other beneficial features. The fault terminal may be used to trigger an external warning system. It allows you to visually recognize the existence of a problem in the circuit.

Unlike fuses, CARDGARD™ is resettable and replacements do not have to be kept on hand. With the manual reset button the system can be reset on the spot, after corrective action has been taken.

The CARDGARD™ is mounted directly onto the printed circuit board, just like other components. Solderable terminals are available for both vertical and horizontal mounting, to adapt to your specific needs. Its bright orange color makes it easy to locate on the board.

The CARDGARD™ can tolerate many of the same chemical cleaning processes as the other components on your p.c. board. However, immersion cleaning is not recommended. We recommend using the reusable protective cover (Part #762-600-5240) during other methods of automated wave soldering and flux cleaning operations.

Using the CARDGARD™, you can design with confidence. It has "Yellow Card" recognition under conditions of UL-1077. You can also use it when designing for the international market. The CARDGARD™ meets the requirements of VDE and IEC for installation in clean, dry or otherwise protected areas which are inaccessible to the operator and is certified to the insulation requirements of IEC 664, Insulation Category 1, Pollution Degree 1, Case A.

The CARDGARD™ is available in seven current ratings, from 1.0 amps to 6.0 amps. The fault terminal is rated at 6.0 amps. Voltage ratings are 32Vdc and 250Vac.

Specifications:

Current Ratings: 1.0 to 6.0 Amps inclusive.

Voltage Ratings: 32 VDC, 250 VAC

Rated for 50 electrical operations at 150% overload current followed by 6,000 mechanical operations at 100% rated current.

Minimum trip point for all ratings — 160%. (See trip curve.)

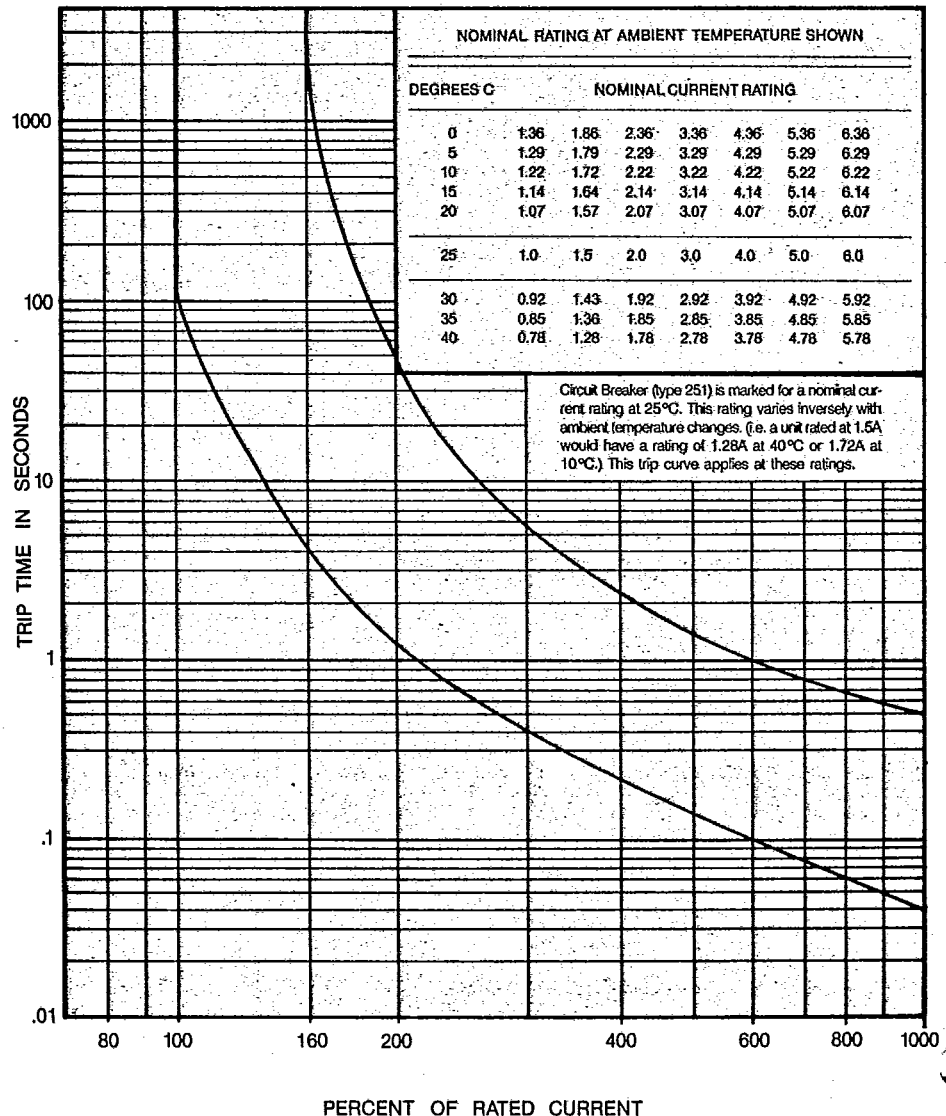
Interrupt Capacity: 10 times rated current.

Nominal Voltage Drop: 0.3

Degree of Protection Provided By Enclosure (Ref. IEC 529): IP30

Handle Operating Force: Operating force applied to handle should not exceed 8 oz.

Temperature (storage and operating): 0° to 40°C.



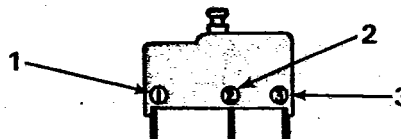
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Terminals & Mounting:

Overload sensing is provided between line and load terminals. In the "ON" position the load and line terminals are electrically connected and the fault indicator terminal isolated. When in the "OFF" position, either by handle actuator or by overcurrent trip, the load terminal is electrically isolated and the line terminal is switched to connect the fault indicator terminal. The fault indicator terminal has a 6 ampere rating allowing trip indication.

Terminals are identified by numbers that are molded permanently in case half.

Terminal #1 — Load Terminal
#2 — Line Terminal
#3 — Fault Terminal



There are two styles available for mounting. Unit can be either vertically or horizontally mounted. Terminals have been designed at .100 increments for standard PC board use.

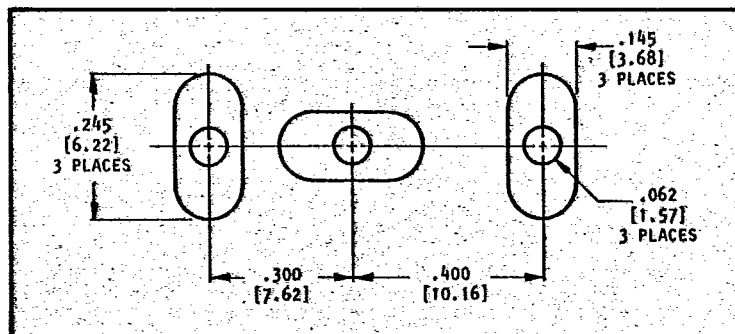
Minimum PC Board Sizes:

Current rating at 25° C:	1.0	1.5	2.0	3.0	4.0	5.0	6.0
Trace width:	.062	.093	.093	.125	.250	.250	.250
Trace thickness (oz.):	1	1	1	1	1	1	2

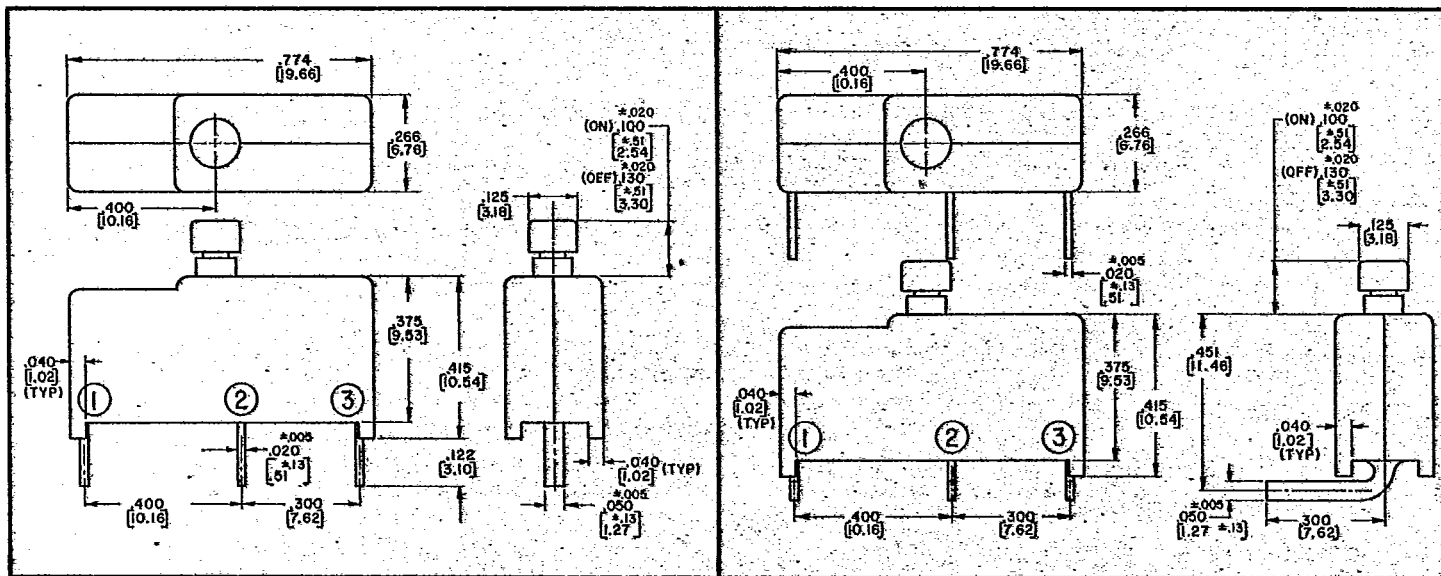
PC Board Pad configuration for mounting this breaker for proper operation and conformation with MIL-STD-275C and IPG-ML-910:

CAUTION —

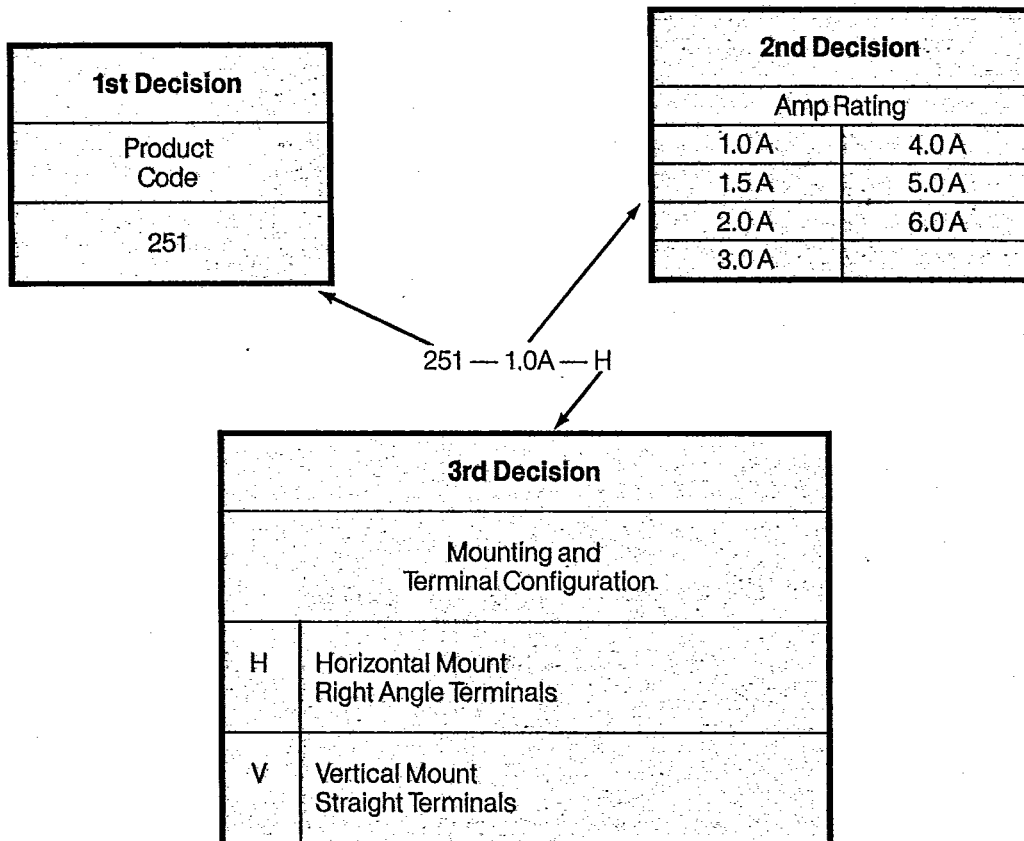
Breaker should be in the "OFF" position and the handle *MUST NOT BE RESTRAINED DURING SOLDER OPERATIONS.*



Dimensional Drawings



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Reasonable quantities are available from stock.

AIRPAX®

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