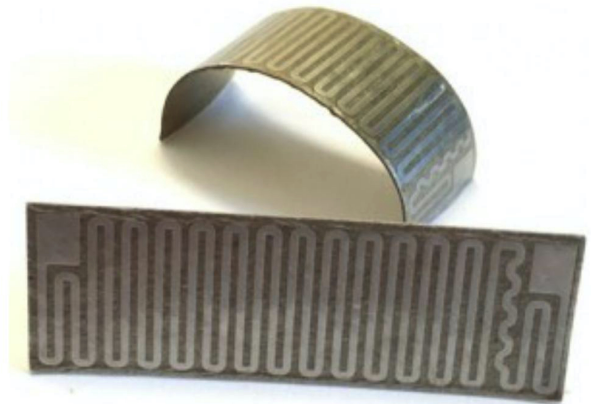


# Etched Foil Mica Heaters

## Technical Data-sheet



### Specifications

**Temperature range:** -150 to 600°C (-238 to 1112°F).

**Lead tab area:** 538°C (1000°F) max.

**Resistance tolerance:** ±10% or ±0.5 Ω, whichever is greater.

#### Dielectric strength:

0.010" (0.3mm) insulation: 1000 VRMS.

0.020" (0.5mm) insulation: 2000 VRMS (recommended for over 250 V).

**Burn-in:** Organic binders will burn off, producing small amounts of smoke, when heaters are first powered. After this, layers can separate so heaters should not be reinstalled.

**Leadwire:** Mica/glass insulated, stranded nickel-clad copper, potted over termination with high temperature cement.

#### Maximum heater thickness:

Mica insulation	Over heater element	Over lead termination
0.010" (0.3 mm)	0.030" (0.8 mm)	0.200" (5.1 mm)
0.020" (0.5 mm)	0.050" (1.3 mm)	0.220" (5.6 mm)

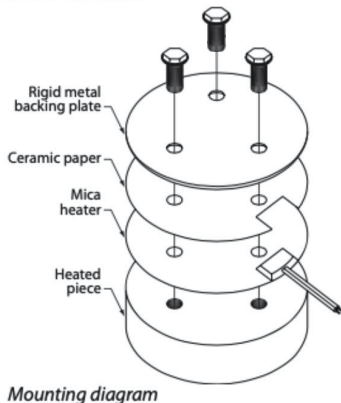
#### Current capacity (based on 100°C max. ambient temp.):

AWG 22 - 8.0 A

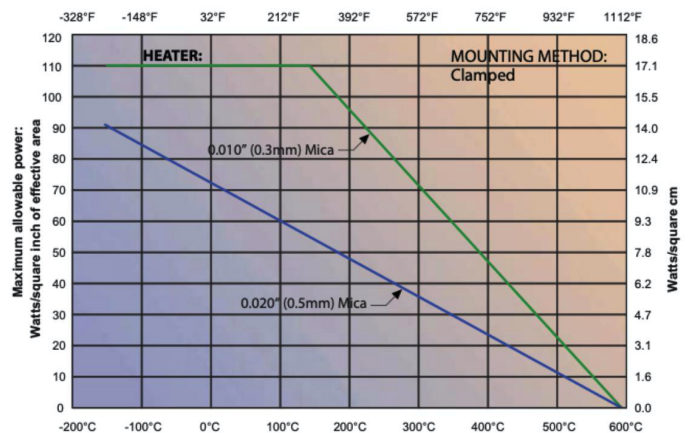
AWG 20 - 9.0 A

AWG 18 - 11.0 A

### Installation instructions



### Mica Heaters Maximum Watt Density



*Example: At 300°C, the maximum power of a 0.010" mica heater is 70 W/in<sup>2</sup> (10.9 W/cm<sup>2</sup>).*

### Backing plates

Backing plates are 0.0625" (1.6 mm) thick stainless steel with pre-drilled holes matching the bolt pattern of the specified model. These backing plates do not have cut out areas for the lead bulge and may require modification.

### Ceramic paper and mica sheets

Each mica heater is supplied with two pre-trimmed sheets of 0.125" (3.2 mm) thick ceramic fabric paper for use as a resilient pad between the heater and backing plate. This paper does not have a cut out area for the lead bulge. If the backing plate being used does not have a cut out area for the leads attachment you must use two pieces of this paper and make this cut out in each.

### Mica sheets

Additional layers of 0.010" (0.3 mm) mica trimmed to the heater size are also available. Using an additional layer of mica will increase the dielectric strength, but it will also reduce the watt density limit by up to 50% across the temperature range. If used on the lead bulge side of the heater then the mica must be cut to allow for the ceramic and wires bulge on that side.