

Miniature Cartridge Heater Provides Maximum Performance Where Space Is Limited

The 1/8" miniature cartridge heater with swaged construction features high watt density, is capable of high operation temperature and provides long life in applications where it is essential to have a very small size.

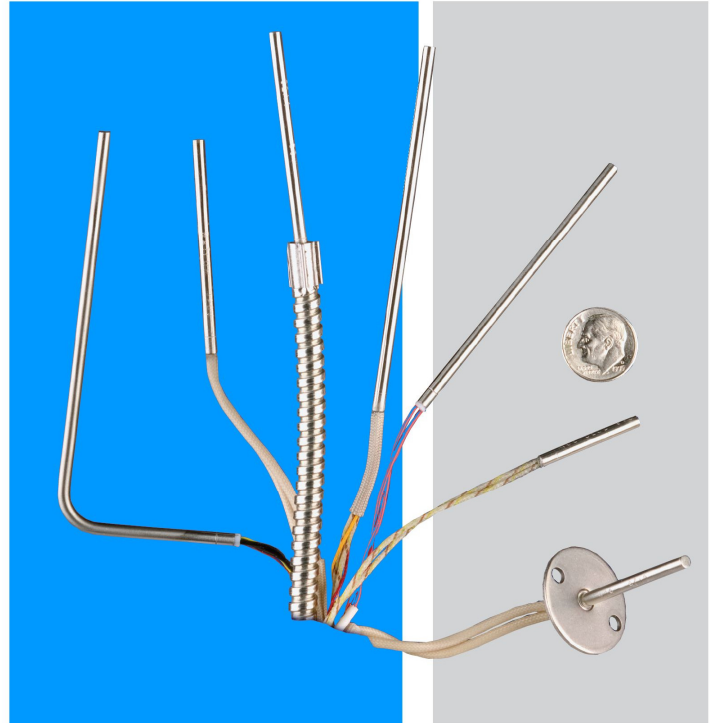
Like all Thermal Solutions cartridge heaters, the 1/8-inch contains a resistance wire closer to the sheath and compacted MgO insulation, which maximizes heat transfer.

Typical Applications

- Gas chromatographs
- Ink jet printers
- Packaging
- Freeze protection

Features and Benefits

- Miniature size delivers high performance in a small package
- Low mass allows better heat transfer, quicker response time and longer life due to lower internal temperature
- Swaged construction ensures higher watt density, higher temperature capability, maximum heat transfer and increased dielectric strength
- Internal thermocouple option is the ideal solution for space-restricted applications
- Stock heaters are available ranging in sizes from 1 1/4 to two inches (32 to 51 mm) in length. Check with a Thermal Solutions of Texas sales associate for sizes and electrical ratings.



Specifications

SHEATH

- Inconel® is standard
- 304 stainless steel is available

MAXIMUM APPLICATION TEMPERATURE

- 1400°F (760°C)

MAXIMUM VOLTAGE

- 240V

MAXIMUM WATTAGE AT 240V

- 744 W

MAXIMUM AMPERAGE

- 3.1 amp

WATTAGE TOLERANCES

- +10 percent, -15 percent

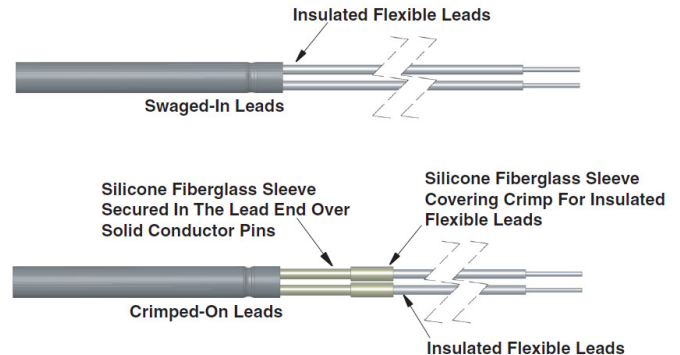
DIMENSIONS

- Actual diameter is 0.122" (3.10 mm) ± 0.002"
- Minimum overall length is 0.875 in. (22.22 mm)
- Maximum overall length is 12 in. (304.8 mm)
- Length tolerance 3" (76 mm) and less ± 3/32"
- Length tolerance greater than 3" (76 mm) ± 3%
- Maximum 0.0001 in. (0.0025 mm) over or under dimensional tolerance is acceptable

CONSTRUCTION

- Solid lead wire is standard, but stranded is available
- Lead options (see illustrations):
 - ✓ *Crimped-on*
 - ✓ *Swaged-in*
- Lead types are:
 - ✓ *Fiberglass 482 °F (250 °C)*
 - ✓ *High temperature fiberglass 842 °F (450 °C)*
 - ✓ *Teflon® 392 °F (200 °C)*
- Moisture resistant option: Teflon® seal and leads available
- Welded end-disk is standard
- Internal thermocouple available
- Thermocouple embedded in the end-disk "C" location
- Type J or K available (solid lead wire)
- Swaged-in, fiberglass 482°F (250°C)
- Swaged-in TeflonR 392°F (200°C)
- For available lengths, consult Thermal Solutions
- Lead protection options
 - ✓ *Stainless steel braid crimped over lead end*
 - ✓ *Stainless steel flexible hose crimped over end*
- Other options
 - ✓ *Bent heaters up to 90 ° angle*
 - ✓ *1" diameter mounting flange (FS flange)*

Lead Options



Internal Construction

