1/8-INCH FIREROD® CARTRIDGE HEATER

Miniature FIREROD® Provides Maximum Performance Where Space Is Limited

The Watlow FIREROD® not only set the industry standard for cartridge heaters, it continues to make improvements in construction and design. Among these innovations is the ⅛-inch FIREROD. This 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 of Watlow's other FIRERODs, the ⅛-inch contains a resistance wire closer to the sheath and compacted MgO insulation, which maximizes heat transfer.

Applications

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

Features and Benefits

Miniature size
- High performance in a small package

Low mass
- Better heat transfer
- Quicker response time
- Longer life due to lower internal temperature

Swaged construction
- Higher watt density
- Higher temperature capability
- Maximum heat transfer
- Increased dielectric strength

Internal thermocouple option
- Ideal solution for space-restricted applications

Stock availability
- Stock heaters are available ranging in sizes from 1¼ to two inches (32 to 51 mm) in length. Check product catalog for sizes and electrical rating.

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Printed in the USA on Recycled Paper, 15% Postconsumer Waste

Specifications

Sheath
- Inconel® is standard
- 304 stainless steel is available

Maximum Application Temperature
- 760°C (1400°F)

Maximum Voltage
- 240V

Maximum Wattage at 240V
- 744W

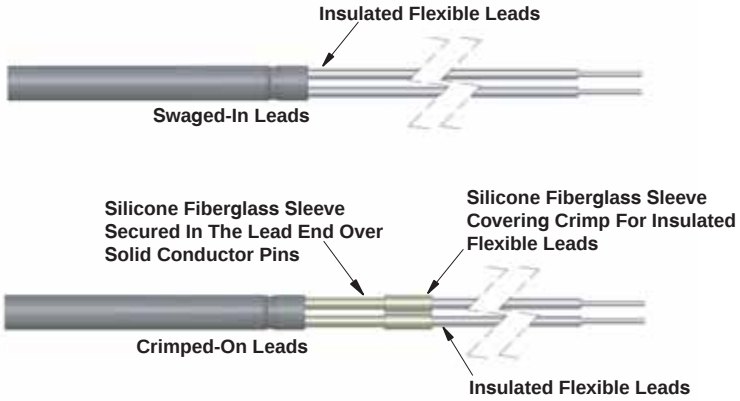
Maximum Amperage
- 3.1 amp

Wattage Tolerances
- +10 percent, -15 percent

Dimensions
- Actual diameter is 0.122 in. (3.10 mm) ± 0.002 in. (0.05 mm)
- Minimum overall length is 0.875 in. (22.22 mm) (Minimum length may change based on lead construction, volts and watts, please consult factory.)
- Maximum overall length is 12 in. (304.8 mm)
- Length tolerance 3 in. (76 mm) and less ± 3/32 in. (2.4 mm)
- Length tolerance greater than 3 in. (76 mm) ± 3 percent

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

Lead Options



Internal Construction

Inconel® is a registered trademark of the Special Metals Corporation.
Teflon® is a registered trademark of E.I. du Pont de Nemours & Company.

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