

Used for the construction of heater elements in cryogenic systems operating as high as 500K.

## Features

- 100' Reel.
- 80% Nickel, 20% Chromium.
- 32AWG, 0.008" diameter.
- Polyimide film insulation operates to 500K.
- Nominal Resistance: 10 $\Omega$  per foot.



When using Constant-Current type heater power supplies like those in all Cryo-con controllers, increase the wire length to increase total power dissipation. Maximum power dissipation for a 50W, 1-Ampere heater output will be obtained with a heater resistance of 50 $\Omega$ . Correspondingly, a 25W, 1Ampere heater will use a maximum resistance of 25 $\Omega$ . Adding resistance beyond these values will not increase power dissipation because the heater voltage compliance limit has been reached.

When using a Constant-Voltage type heater power supply, decreasing the wire length increases power dissipation in the heater.

Nichrome is ferromagnetic and may not be applicable to all systems. For non-ferromagnetic heaters, consider Phosphor Bronze or Manganin wire.

Polyimide insulation is difficult to remove and will require chemical or mechanical stripping.

## Accessories

3039-001 Cartridge Heater, 50 $\Omega$ , 0.25" x 1".  
3039-002 Cartridge Heater, 50 $\Omega$ , 0.125" x 1.5".

## Contact Information

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