

INTRODUCTION TO SELF-REGULATING HEATING CABLE

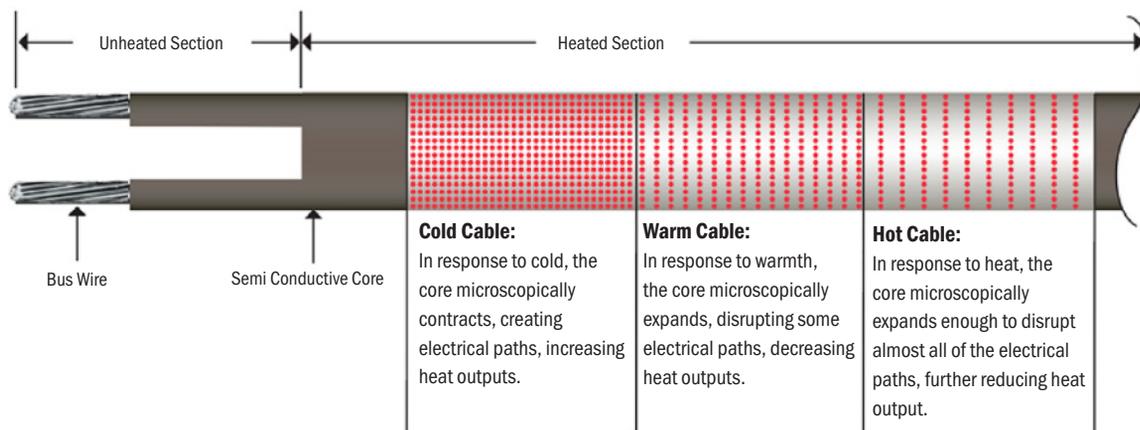
Features & Benefits

- ▶ Automatically adjusts heat output based upon surface temperature
- ▶ Can be safely overlapped and insulated
- ▶ Ideal for long runs
- ▶ Can be cut-to-length at job site
- ▶ Temperatures up to 250 °F (121 °C)
- ▶ Wide range of applications
 - Pipe tracing
 - Vessel tracing
 - Freeze protection
 - Viscosity control
 - Low temperature process maintenance
 - Roof and gutter
 - Ordinary locations
 - Hazardous locations



**Temperatures
Up to
250 °F (121 °C)**

How Self-Regulating Heating Cable Works



The semi-conductive core material contains a graphite network, which allows electricity to flow from one bus wire to the other. When the core is dense and colder, there are many paths for electricity to take through the graphite network, producing more heat.

Since the core material expands as it heats, the graphite network is elongated, disrupting some of the paths. More and more paths are disrupted as heating continues until the system reaches self-

controlled thermal stability. When the core material cools, it contracts, reconnecting some of the electrical paths in the graphite network, and more equivalent heat is produced.

This temperature response occurs independently at each point along the heater. If an externally produced high temperature occurs next to a low temperature in the cable, each section of heating cable will adjust its own heat output in relation to its own local requirements.