

Providing a Consistent Water Temperature for Large Multitap Applications



Nelson™ Heat Trace Systems

Heat tracing cable for commercial hot water maintenance applications.



Delivering a comprehensive hot water maintenance system solution.

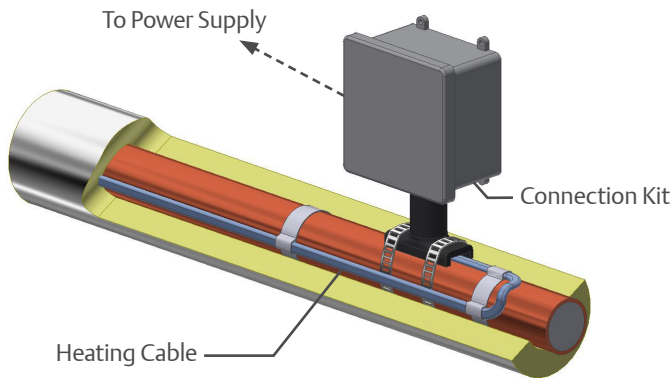


Self-regulating capabilities, environmental safeguards and a solid design make the self-regulating system the wisest choice for a variety of commercial facilities including hospitals, hotels and correctional institutions. Utilizing self-regulating technology, the cable is designed to sustain nominal hot water temperatures of +41 °C (+105 °F), +46 °C (+115 °F), +52 °C (+125 °F) or +60 °C (+140 °F), consistently maintaining your water supply at a prescribed temperature.

More traditional recirculating boiler systems are costly and grossly inefficient in comparison to our self-regulating heat tracing cable. The self-regulating system consists of fewer components, requires no multiple tracing and no spiraling, which reduces time spent on design and installation. And it completely eliminates the need for the multitude of return pipes, pumps and valves necessary in the boiler's setup.

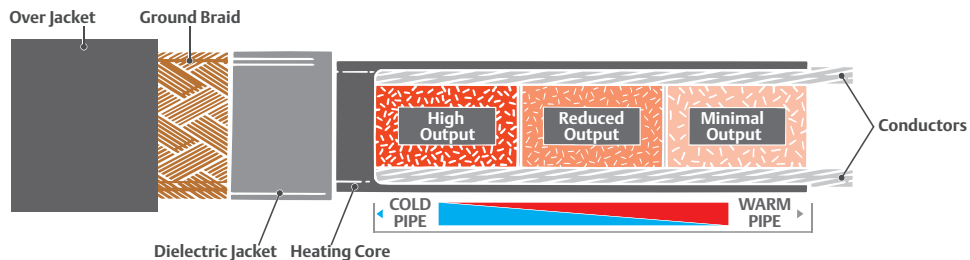
Self-regulating advantages aren't limited to installation, savings are also found in the system's operation. Because our cable only heats when and where it is needed, energy is conserved as well as your finances.

Keeping hot water flowing through your pipes.



Nelson hot water maintenance systems by Emerson are the ideal solutions to ensure hot water supply lines are maintained at a consistent temperature, reducing or eliminating the delay in obtaining hot water at each fixture. Self-regulating heater cable combined with the right connection kits and accessories ensure that the pipes they are installed on are maintained at a prescribed conditions. Let our Nelson Design Suites software help recommend the right cable for your application and provide the electrical installation details of each circuit.

Operating Principle of Self-Regulating Heater Cables



Parallel bus wires apply voltage along the entire length of the heater cable. The conductive core provides an infinite number of parallel conductive paths permitting the cable to be cut to any length in the field with no dead or cold zones developing. The heater cable derives its self-regulating characteristic from the inherent properties of the conductive core material. As the core material temperature increases, the number of conductive paths in the core material decrease, automatically decreasing the heat output. As the temperature decreases, the number of conductive paths increase, causing the heat output to increase. This occurs at every point along the length of the cable, adjusting the power output to the varying conditions along the pipe. The self-regulating effect allows the cable to be overlapped without creating hot spots or burnout. These cables offer electric power efficiency because the heat output is self-regulated. This means that heat is produced only when and where it is needed.

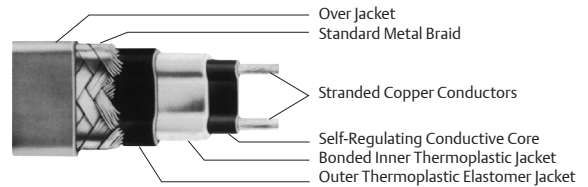
Self-Regulating Heater Cable

Ideal for Harsh and Rugged Commercial Applications.

The heating cable is fastened directly to the pipes, running their full length and creating a symbiotic relationship, which allows the cable to gauge any changes in water temperature. Sensing a decrease or increase in temperature, the conductive core then adjusts it's own power output in response, and produces a consistent flow of perfectly heated water – no hot spots, no burnouts, no recirculation.

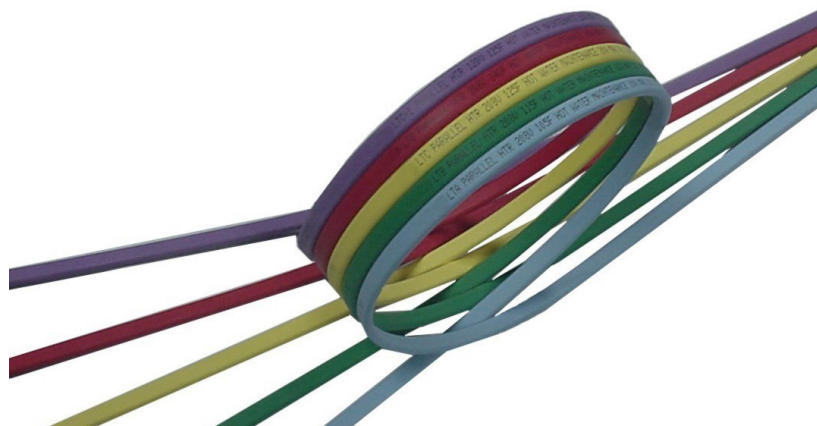
Nelson Type LT Hot Water Cable

- Ensure a reliable hot water supply at a consistent temperature of 105 °F, 115 °F, 125 °F or 140 °F.
- Available for 208 Vac and 120 Vax supply voltages.
- UL Listed for use in non-hazardous locations.



Heating Water Comparison Cable

Cable	Service Voltage, Vac	Max. Segment Length, ft (m)	Nominal Maintenance Temperature, °F (°C)	Ambient Temperature Range, °F (°C)	Color Code
LT-A	208	810 (246)	105 (41)	74-79 (23-26)	Blue
LT-B	208	770 (234)	115 (46)	70-78 (21-26)	Green
LT-C	208	720 (219)	125 (52)	70-78 (21-26)	Yellow
LT-D	208	715 (217)	140 (60)	70-78 (21-26)	Red
LT-C1	120	330 (100)	125 (52)	70-78 (21-26)	Purple



Connection Kits for Self-Regulating Heater Cable

Ideal for Harsh and Rugged Commercial Applications.

Nelson Heat Trace connection kits are designed to protect cable connections within your facility.

Nelson PLT-LP

- Non-metallic connection kit designed for connecting two heating cables in an in-line splice configuration.
- The PLT-LP Connection Kit is suitable for connecting up to two heating cables to customer supplied power wiring or as an in-line splice configuration utilizing a customer supplied junction box.
- Kit Contents:
 - 1 Universal Base, Box Adapter, Sealing Gasket and Locknut
 - 1 Sealing Grommet (Specify Cable Construction)
 - 1 Ground Connection Splice



Nelson PLT-LPS

- Non-metallic connection kit designed for connecting two heating cables in an in-line splice configuration.
- The PLT-LPS Connection Kit is suitable for connecting up to two heating cables to customer supplied power wiring or as in an in-line splice configuration utilizing a customer supplied junction box.
 - This kit differs from the PLT-LP in that it also contains shrink tube cable terminations.
- Kit Contents:
 - 1 Universal Base, Box Adapter, Sealing Gasket and Locknut
 - 1 Sealing Grommet (Specify Cable Construction)
 - 1 Power Termination and Cable End Seal
 - 1 Ground Connection Splice



Connection Kits for Self-Regulating Heater Cable

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Nelson PLT-BC

- The PLT-BC Power Connection Kit is suitable for connecting up to two heating cables to customer supplied power wiring.
- Kit Contents:
 - 1 Universal Base, Box Adapter, Sealing Gasket, O-Ring and Locknut
 - 1 Junction Box with Sealing Gasket and Cover
 - 1 Sealing Grommet (Specify Cable Construction)
 - 1 Power Termination and Cable End Seal with Adhesive Sealant
 - 1 3-Point Floating Terminal Block
 - 1 Ground Connection Splice
 - 2 Stainless Steel Pipe Clamps (specify pipe size)



Nelson PLT-BS

- The PLT-BS Splice Connection Kit is designed for connecting two heating cables in an in-line splice configuration.
- Kit Contents:
 - 1 Universal Base, Box Adapter, Sealing Gasket, O-Ring and Locknut
 - 1 Junction Box with Sealing Gasket and Cover
 - 1 Universal Sealing Grommet
 - 2 Power Terminations with Adhesive Sealant
 - 1 3-Point Floating Terminal Block
 - 1 Ground Connection Splice
 - 2 Stainless Steel Pipe Clamps



Nelson PLT-BY

- The PLT-BY Tee Connection Kit is designed for connecting three heating cables in a tee splice configuration.
- Kit Contents:
 - 1 Universal Base, Box Adapter, Sealing Gasket, O-Ring and Locknut
 - 1 Junction Box with Sealing Gasket and Cover
 - 1 Watertight Connection Fitting and Hi-Temp Flexible Tubing
 - 1 Sealing Grommet
 - 3 Power Terminations and 2 Cable End Seals with Adhesive Sealant
 - 1 3-Point Floating Terminal Block
 - 1 Ground Connection Splice
 - 2 Stainless Steel Pipe Clamps



Self-Regulating Heater Cable Accessories

Ideal for Harsh and Rugged Commercial Applications.

Nelson Heat Trace connection kits are designed to protect cable connections within your facility.

LT-SP Heat-Shrinkable Power End Termination Kit

- Used for terminating field-fabricated heater cables inside the power connection box.
- Each kit makes 5 complete terminations.

LT-SE Heat-Shrinkable End Seal Termination Kit

- Used for terminating the ends of field-fabricated heater cables.
- Each kit makes 5 complete terminations.

LT-SS Heat-Shrinkable In-Line Splice Connection Kit

- Used for splicing 2 cables under the insulation.
- Each kit makes 5 complete assemblies.

LT-ST Heat-Shrinkable Tee-Splice Connection Kit

- Used for splicing 3 cables under the insulation.
- Each kit makes 5 complete assemblies.

GT-60 Tape (60 Yards)

- Fiberglass Tape, 0.5" wide.
- Used to attach heater cables to pipe or to attach temperature sensors to the pipe when corrosive conditions prevent the use of aluminum tape.

GT-6 Tape (20 Yards)

- Fiberglass Tape, 0.5" wide.
- Used to attach heater cables to pipe or to attach temperature sensors to the pipe when corrosive conditions prevent the use of aluminum tape.

Innovative and reliable heat trace solutions for demanding environments.



Nelson is the cornerstone brand of Emerson's Electrical Apparatus and Lighting business; trusted worldwide to make electrical installations safer, more productive and more reliable.

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