

Keep fluids flowing at  
consistent temperatures even  
in freezing conditions.

## EasyHeat™ Pipe Trace Systems

Pipe freeze protection and low-temperature maintenance systems  
for commercial applications



# Sometimes insulating your pipes is not enough.



Self-regulating heater cables are ideal to ensure pipes maintain specific temperatures.

In many parts of the country, frigid temperatures can result in water freezing and pipes bursting, or liquid setting and plugging the pipe. Insulating the pipes is not always enough to protect them from losing heat in these conditions. Loss of heat within the pipe can lead to costly repairs or facility shutdowns.

What if you could install a solution that allows you to operate it without the worry of overheating the pipes and their contents. A system designed for your facility's requirements?

**" Having a system that provides a steady temperature is critical to our business. Having one that provides simple, reliable operation, means less time has to be spent monitoring the cables for hot-spots in the pipe."**

- Wastewater treatment professional.



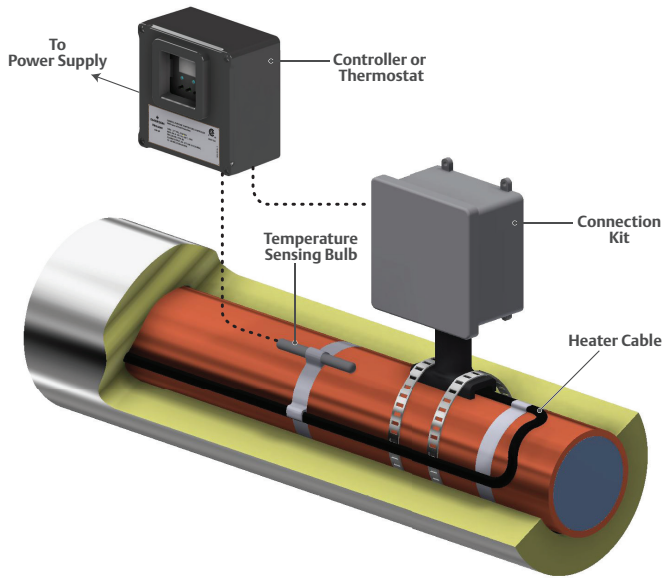
**" The advantages of a self-regulating heater cable installed in the facility are vast. But knowing that we don't need antifreeze in the system removes the possibility of chemical leaks. That makes the facility safer for all of us."**

- Engineer at food processing plant.



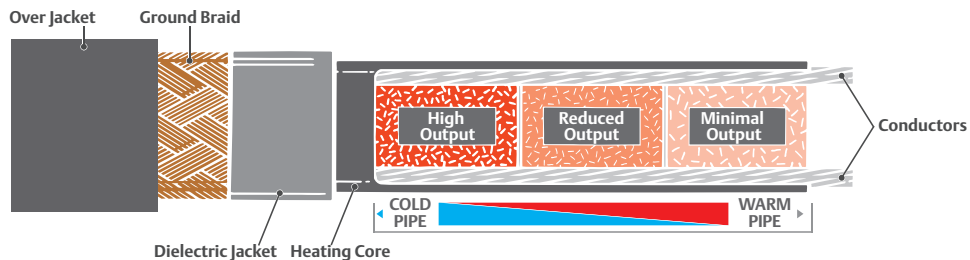


# Keep your pipes a consistent temperature.



EasyHeat low-temperature maintenance and pipe freeze protection systems by Emerson are the ideal solutions to ensure cold temperatures don't slow you down. Self-regulating heating cables automatically vary their heat output as the surrounding temperature changes, to maintain viscosity for flow conditions or prevent freezing. In indoor or outdoor installations, in ordinary or hazardous locations — when combined with the proper controls and accessories, EasyHeat heater cables ensure that the pipes they are installed on, and the equipment they are connected to, remain operational — no matter the surrounding temperatures.

## 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 and the maximum sheath temperature is limited. This means that heat is produced only when and where it is needed.

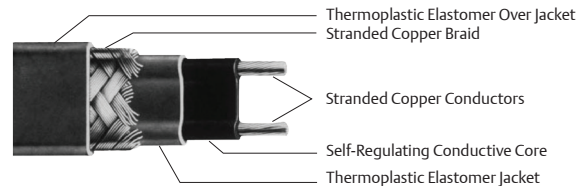
# Self-Regulating Heater Cable

## Ideal for Harsh and Rugged Commercial Applications.

EasyHeat Pipe Trace heater cable is designed to replace heat lost through the thermal insulation from equipment in the system. Our self-regulating heater cable will adjust its own output in response to pipe temperature and is available in a variety of temperature and power ratings.

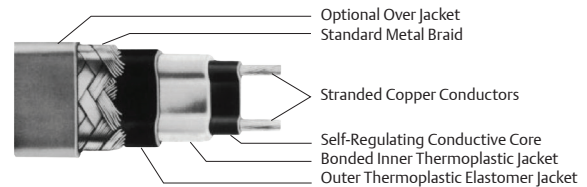
### EasyHeat SR Trace

- Designed for use in Ordinary (Unclassified) Locations.
- Ideal for use in maintaining fluid flow under low ambient conditions and for freeze protection and low watt density process temperature systems. Typical applications include pipelines, fire protection, process water, hot water and structure anti-icing.



### EasyHeat TSR

- Designed for use in Ordinary (Unclassified) and Hazardous (Classified) Locations.
- Ideal for use in maintaining fluid flow under low ambient conditions. Typical applications include freeze protection and low watt density process temperature systems such as product pipelines, fire protection, process water, lube oil and condensate return.



Product Feature	SR Trace Cable	TSR Cable
Applications	Water Supply Lines Drain Lines Grease Lines Fuel Oil Lines	Water Supply Lines Drain Lines Grease Lines Fuel Oil Lines Wastewater Treatment Food Processing Flow Maintenance
Power Rating	3-9 W/ft (10-29 W/m)	3-11.6 W/ft (10-38 W/m)
Voltage	120-277 Vac	120-277 Vac
Available Over Jacket Material	Modified Polyolefin	Modified Polyolefin Fluoropolymer
Buss Wire Size	18 Gauge	16 Gauge
Certifications and Compliance	Ordinary (Unclassified) Locations: <ul style="list-style-type: none"> <li>• UL Listed</li> <li>• CSA Certified</li> </ul>	Ordinary (Unclassified) and Hazardous (Class I, Division 2) Locations: <ul style="list-style-type: none"> <li>• UL Listed</li> <li>• CSA Certified</li> <li>• FM</li> </ul>

# Connection Kits for Self-Regulating Heater Cable

## Ideal for Harsh and Rugged Commercial Applications.

EasyHeat Pipe Trace connection kits are approved for use in ordinary (unclassified) and Division 2 hazardous areas when used with EasyHeat field-fabricated heating cables.

### EasyHeat TSRP

- Non-metallic connection kit 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
  - 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



### EasyHeat TSRS

- Non-metallic connection kit 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



### EasyHeat TSRT

- Non-metallic connection kit 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



### EasyHeat TSRL

- Non-metallic connection kit designed as end-of-circuit indicating light assemblies utilizing low temperature LED lamps. They are suitable for 120/208/240/277 Vac operation.
- Kit Contents:
  - 1 Universal Base, Box Adapter, Sealing Gasket and Locknut
  - 1 Junction box with Sealing Gasket and Cover
  - 1 Pilot Light Assembly (Specify Voltage)
  - 1 Sealing Grommet (Specify Cable Construction)
  - 1 Power Termination with Adhesive Sealant
  - 1 Ground Connection Splice
  - 2 Stainless Steel Pipe Clamps (Specify Pipe Size)



# Connection Kits for Self-Regulating Heater Cable

## Ideal for Harsh and Rugged Commercial Applications.

EasyHeat Pipe Trace connection kits are approved for use in ordinary (unclassified) and Division 2 hazardous areas when used with EasyHeat field-fabricated heating cables.

### SRM2 End Seal and Power End Connection Kit

- Used for terminating the ends of field-fabricated heating cables and heating cables inside a power connection box.
- Constructed of molded silicone material with waterproof silicone adhesive.
- Kit contains 2 end seals, 2 power end connections, and silicone adhesive.
- One year limited warranty.



## Pipe Tracing Accessories

### AL Tape ALT1

- ALT aluminum heat transfer tape is used on plastic pipes for even heat distribution.
- Measurements:
  - 2 in x 60 yd (0.05 m x 54.86 m)
- One year limited warranty.



### Fiberglass Tape NST2

- NST2 fiberglass application tape is heat resistant and used to attach heating cable to pipe for most applications.
- Measurements:
  - 0.75 in x 36 yd (0.02 m x 32.92 m)
- One year limited warranty.



# Self-Regulating Heater Cable Thermostats

Ideal for Harsh and Rugged Commercial Applications.

EasyHeat Pipe Trace thermostats are approved for use in ordinary (unclassified) and Division 2 hazardous areas when used with EasyHeat field-fabricated heating cables.

## EasyHeat T4XA

- For ambient temperature control in ordinary (unclassified) or corrosive locations.
- NEMA Type 4X, IP66, die cast aluminum enclosure with single pole, double throw switch
  - Temperature Range: -9 °C to +60 °C (+15 °F to +140 °F)
  - Exposure: -40 °C to +71 °C (-40 °F to +160 °F)
  - Capillary:
    - Length: N/A
    - Material: Stainless Steel
    - Maximum Bulb Temperature: +71 °C (+160 °F)
  - Electrical Data: 22 amp resistance 480 Vac
  - Calibration Accuracy: +1.1 °C (+2 °F)



## EasyHeat T4XC

- For controlling heat tracing systems in ordinary (unclassified) or corrosive locations.
- NEMA Type 4X, IP66, die cast aluminum enclosure with single pole, double throw switch
  - Temperature Range: -4 °C to +163 °C (+25 °F to +325 °F)
  - Exposure: -40 °C to +71 °C (-40 °F to +160 °F)
  - Capillary:
    - Length: 3 m (10 ft)
    - Material: Stainless Steel
    - Maximum Bulb Temperature: +215 °C (+420 °F)
  - Electrical Data: 22 amp resistance 480 Vac
  - Calibration Accuracy: +1.6 °C (+3 °F)



## EasyHeat C4XC

- For controlling heat tracing systems in ordinary (unclassified) or corrosive locations.
- NEMA Type 4X, IP66, molded fiberglass enclosure with single pole, single throw switch
  - Temperature Range:
    - Fixed Range: 4.4 °C (40 °F)
  - Exposure: -40 °C to 71 °C (-40 °F to +160 °F)
  - Capillary Length: 0.762 m (2.5 ft)
  - Material: Tin Plated Copper
  - Maximum Exposure Temperature: +60 °C (+140 °F)
  - Electrical Data: 22 amp resistance 480 Vac
  - Calibration Accuracy: +2.2 °C (+4 °F)



## Self-Regulating Heater Cable Controllers

EasyHeat Pipe Trace micro-processor based, digital, general purpose controllers are designed for use in ordinary (unclassified) locations to provide temperature control of an individual heater segment with sensor monitoring, remote alarm contacts, and ground fault leakage detection.

### EasyHeat EGPC

- This micro-processor based digital electronic controller has been specifically designed for wall mounted electric heat tracing applications. It provides temperature control of an individual heater segment with sensor monitoring, remote alarm contacts, and ground fault leakage detection.
  - NEMA 4X Fiberglass reinforced, carbon impregnated, UV resistant polymer enclosure is designed for wall mounted applications.
  - System is provided with dual pole heater switching and is environmental hardened for use in various plant locations and can be installed in ordinary locations.
  - Provided with a common alarm contacts for remote monitoring of the control system.



# Heating cable solutions for temperature-related problems.




**EASYHEAT**<sup>®</sup>

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