

Self-regulating electric heating cable for contact or conductor rail, 3rd rail & points heating.

## CONTACT RAIL HEATER

Cut To Length - Parallel Resistance Self-Regulating Heating Cable

- Automatically adjusts heat output in response to increasing or decreasing pipe temperature.
- Can be supplied in pre-terminated lengths, or in bulk reel stock.
- Inherently temperature safe.
- Available up to 1000 Volts AC or DC (as standard).
- Nominal outputs up to 130W/m.
- Full range of controls and accessories available including GRP Capping and associated retaining clips.

### DESCRIPTION

The CRH contact or conductor rail heater has been specifically developed for conductor, or 3rd rails, operating on traction power voltages and also for points heating applications.

CRH rail heater is designed to maintain the operational integrity of rail networks, ensuring that conductor rails, or points systems are kept clear of snow and ice during adverse weather conditions.

CRH may be supplied in bulk on reels, or in pre-terminated lengths fitted with cold power connection lead and remote end seal. It is suitable for direct replacement of existing rail heaters and can integrate with the majority of existing rail heating systems.

The heater is held in place on the rail using a protective GRP insulated, or non-insulated, capping section and appropriate purpose made heavy duty rail clips.

The installation of CRH heating cables is quick and simple and requires no special tools. The fitting of new or replacement heaters can be carried out quickly and safely with minimum track possession time and therefore minimum disruption to rail traffic. All system components are modular to ensure fast and simple installation.

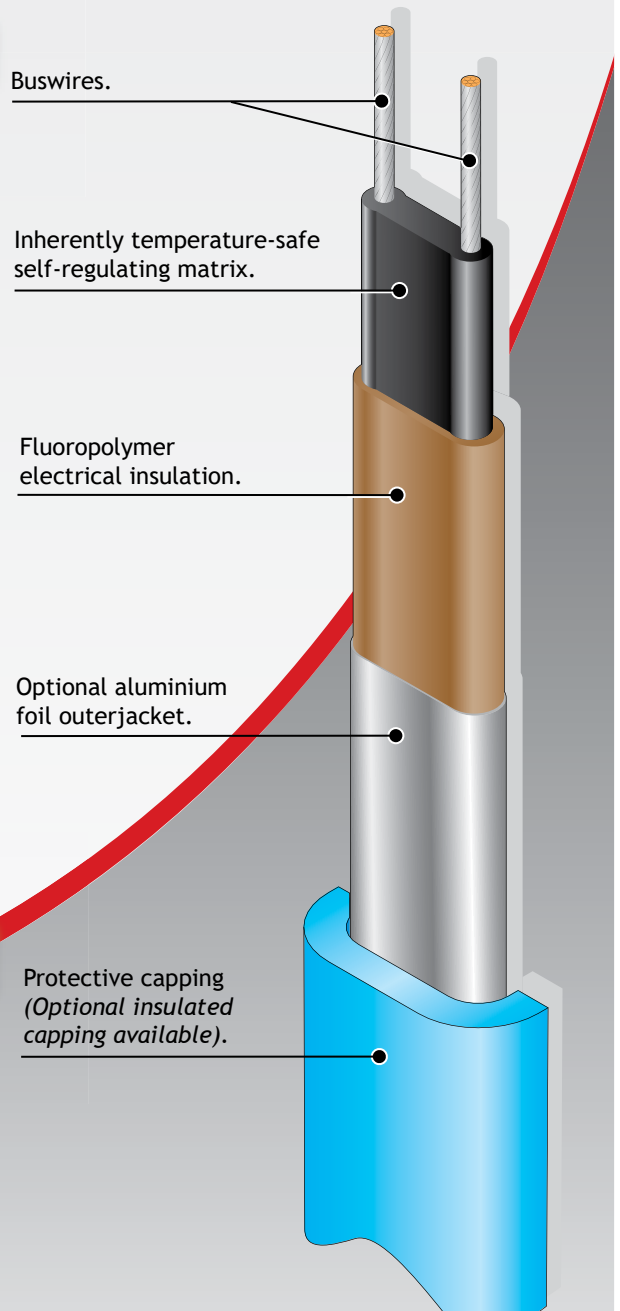
CRH heating cables and system components are suitable for withstanding the hazards of a rail environment, such as severe and continuous vibration due to rail traffic, immersion in icy water, snow, weed killer formulations, diesel oils, lubrication oils, oxalic acid and de-icing fluids.

CRH heating cables are able to operate in 'free air', totally, or partially, without affecting their working life.

### INHERENTLY TEMPERATURE-SAFE

"The inherent ability to self-regulate at a temperature level below the maximum product rating and withstand temperature of the insulating materials, without the need for temperature control."

Similar competitor self-regulating products are typically limited to a maximum energised temperature, typically 120°C, at which point their retained power output prevents the cable from self-regulating at its own limiting temperatures. All such products require temperature control to ensure their own temperature safety.



## SPECIFICATION

**MAXIMUM TEMPERATURE:  
ENERGISED OR UN-ENERGISED:** 250°C (482°F)

**MINIMUM INSTALLATION  
TEMPERATURE:** -40°C (-4°F)

**POWER OUTPUT (nominal):** up to 130W/m @ 0°C

**POWER SUPPLY:** up to 1000 Volts (AC or DC)

### CONSTRUCTION:

Heating Element: Semi-conductive self-limiting matrix.  
Power Conductors: Nickel plated copper.  
Primary Insulation: Fluoropolymer.  
Outer Jacket (optional): Aluminium foil.

### WEIGHTS & DIMENSIONS:

Type Ref	Dimensions (mm)+/-0.5	Weight kg/100m	Min Bending radius
CRH	13.6 x 4.8	11.5	30mm

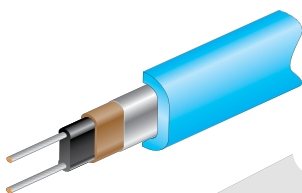
### ORDERING INFORMATION:

Example - pre-terminated lengths 120 CRH 6 - 100M  
Nominal Output 120W/m @ 0°C  
CRH Heating cable  
Supply Voltage 600V DC  
Heated Length (if pre-terminated)

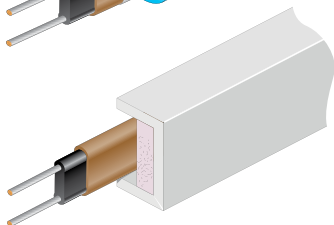
### ATTACHING THE HEATER TO THE RAIL:

Heaters may be mounted on the rail using a channel capping. For applications that use an aluminium clad conductor rail, an angle section is also available.

Specially designed spring clips hold the heater and the channel, or angle, to the rail. A range of clips are available to suit a variety of different rail profiles.



Foiled heater shown with non-insulated capping



Unfoiled heater shown with insulated capping

### ACCESSORIES:

Heat Trace supply a complete range of installation accessories including cold lead connections, rail clips, control systems, insulated and non-insulated protective capping.

### IMPORTANT NOTES:

The CRH Rail Heater should only be fitted to rails using approved methods. The heating cable should only be terminated using the approved cold lead connection and the special heat shrink boot and tubing. Connections must be of an approved type.

Full details of all approved ancillary and control equipment is available on request. Installation of the CRH heating cables must be carried out in accordance with Heat Trace's Code of Practice for the Installation of Rail Heating Systems.

### NB

Information on MAXIMUM CIRCUIT LENGTH (m) vs. CIRCUIT BREAKER at various voltages is available on request. Different voltages will affect circuit lengths and circuit breaker sizes. Once the application information and required operating parameters are available, maximum circuit lengths and circuit breaker sizes can be calculated accordingly.

### HEATER OUTPUT GRAPH:

