

# SAN/Omni Control Technologies

## BENEFITS

### Long Lifetime

More than 15,000 installations in the rugged railway environment that have been proven in all climates and weather conditions.

### Warranty

A 10 year warranty is available for heaters with a Monel Sheath and a 3 year warranty is available for Stainless Steel heaters.

### Easy Installation

Specially engineered kick-on Stainless Steel clips make for easy installation while saving time.

### Energy-Saving

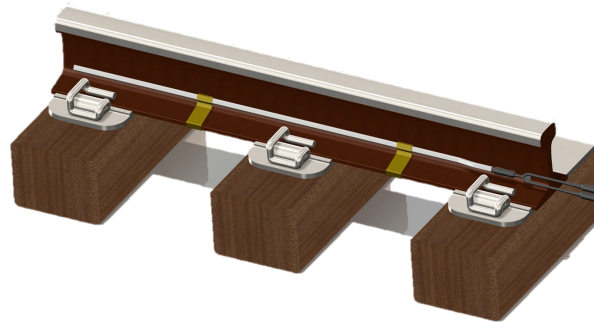
Created for switch and stock rail, the flat heater profile allows for 40% contact with the rail, in contrast with 15% of a tubular heater.



## Switch Point Heaters & Covers

San Electro Heat and Omni Control Technologies manufacture and produce robust flat switch heating elements that are then tailored to the needs of the rail customer. This customization involves the packaging, termination, and connectorization of the heaters being produced. This partnership optimizes and focuses the experience and technology from Europe and places it in the hands of a seasoned U.S. rail manufacturer.

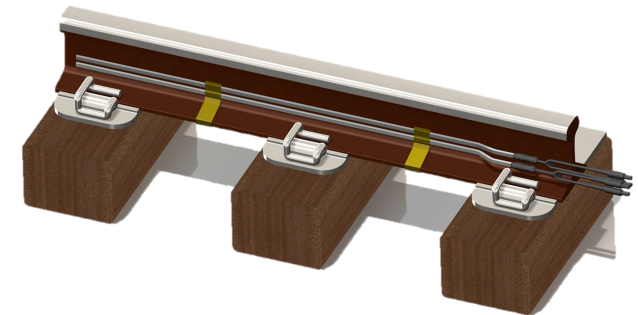
### SINGLE ELEMENT



The single element flat switch point heater allows for maximum energy efficiency.

- Monel 400 or SS Sheathing
- 100 W/ft. to 300 W/ft.
- Single SS Spring Clip (kick-on)
- 4ft. - 24ft. Length

### DUAL ELEMENT



The double element flat switch point heater allows for maximum heat with a redundant path.

- Monel 400 or SS Sheathing
- 100 W/ft. to 600 W/ft.
- Double SS Spring Clip (kick-on)
- 4ft. - 24ft. Length

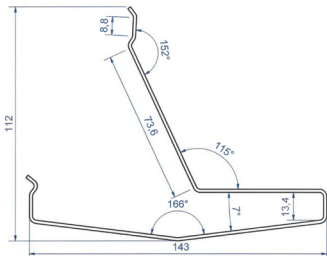
# Switch Point Heaters & Covers

## Switch & Switch Heating Construct

### 3 Areas of Heat

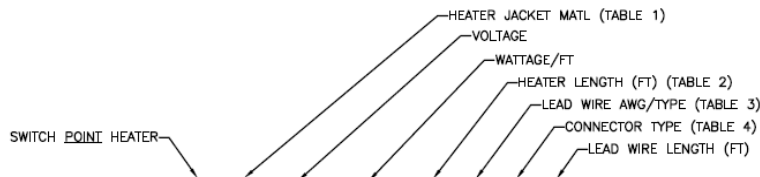
1. Outside Switch Point Rail Heating
2. Inside Switch Point Heating
3. Switch Road Heating/ Pan

### Kick-On Stainless Steel Clips



The Kick-On clip design provides a quick, non-invasive approach to Switch Point heater attachment to the rail. In addition to these benefits, it is made to last with a stainless steel composition vs. other more corrosive alloys.

### Part Number Construct



iTraks-SPH-ML-750-250-24-EX8-NC-15  
EXAMPLE PART NUMBER

iTraks-SPH-MM-VW-WWW-LL-GGG-CCCC-XX  
GENERIC PART NUMBER FORMAT

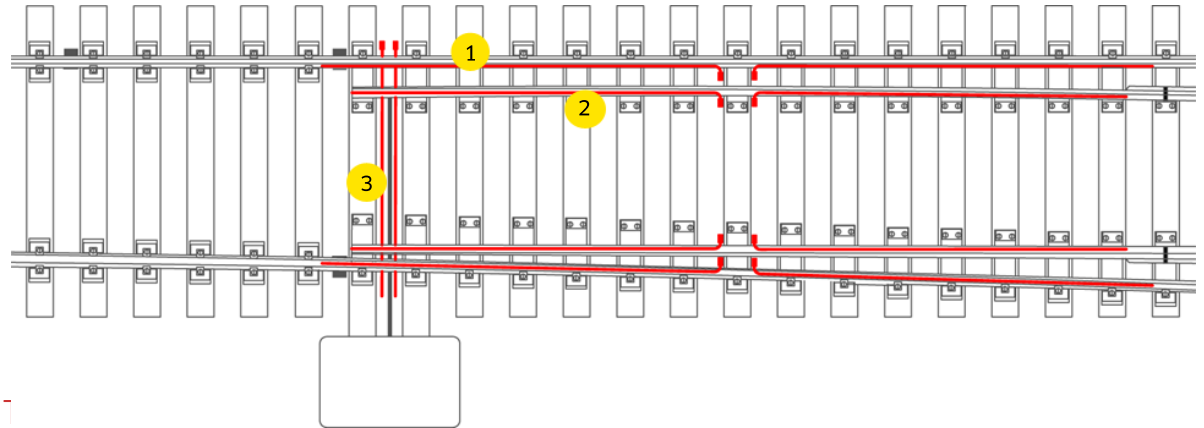


Illustration shows a 1:9 Radius 190 switch point

### Technical Capabilities

#### Voltages:

40 to 750 V

#### Lead Cable Connection:

Permanently Molded

#### Lead Cable Type:

H07BQ-F, 8 AWG Exane, or as required by specification.

#### Lead Cable Length:

15 foot standar, or as required by specification

#### Protection Class:

IP67

#### Electrical Isolation:

>10 MΩ

#### Heating Element Length:

From 4ft. Up to 24ft.

#### Heating Element Dimensions:

0.52" x 0.20"

#### Power Termination:

OD: 1.0"

#### Power Termination Length:

3.0"

#### Power Termination Cold Zone:

6.0"

#### End Seal Cold Zone:

0.8"

#### Outer Jacket:

MONEL 400\* or Stainless

#### \*MONEL 400:

-Impervious to salt and most chemicals

-Raises MTBF of heaters better than 30 years

-10 year warranty