



e-WARM is designed to prevent problems in the railway points, which occur due to snow and icing at adverse weather conditions. The system enables automatic operation with the help of its snow-ice and temperature sensors and ensures uninterrupted and safe railway operation.

- Thanks to the redundant communication architecture and weather stations the system has low power consumption and high reliability.
- Communication between control unit and site is achieved through fiber optic cable, which eliminates excessive costs for using copper cables.
- Communication through fiber optic cables provides effective transmission of higher quantities of operation and maintenance indications of the switch heater to the interlocking unit.
- Each switch heater is controlled separately. Status indications of all equipment on the system (Fuses, switching devices, PLC's, etc) are sent to the control center. Thus, the time to remedy any failure in the system is kept at minimum.
- The system can be applied to switches at all locations and all rail systems, from high speed train lines to maintenance/marshalling yards, main line railways, commuter lines, metros, light rail and tram systems.
- Industrial processors are used on the site cabinets and central units. Therefore, any of communication solution like Modbus TCP, dry contact and serial port can be used for interlocking and control center connections.
- e-WARM saves time and cost, providing variable interface applications and easy installation feature.

E/WARM

POINT HEATING SYSTEM



HEATING SOLUTIONS ON SNOWY WEATHERS

E/WARM

is a complete switch heater solution consisting of resistances, power distribution cabinets on the site, central control unit and control software.

Technical Info

Rated Supply Voltage for Operation :

90 – 270 V AC

Ambient Air Temperature for Operation :

-40 to +70°C

Communication Protocols :

ModBus TCP, Modbus RTU, Serial Communication, Dry Contact

Communication with Site Cabinets :

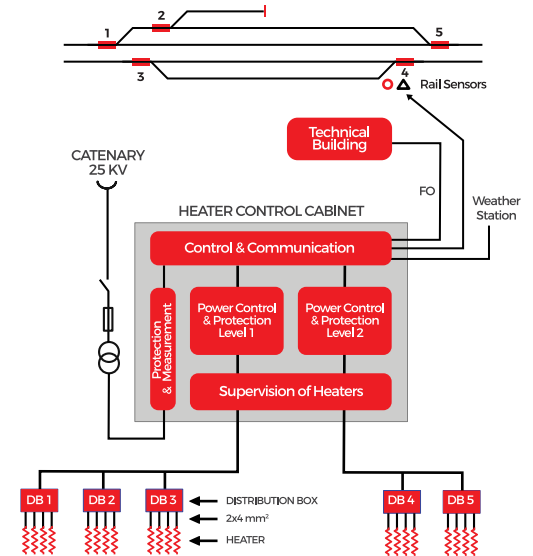
ModBus TCP Through Fiber Optic Cable

IP Degree of Protection :

IP65 (Cabinets and Distribution Boxes)

Designed According to European Standard:

EN IEC 61439-1:2021 , IEC 62208:2023 , IEC 60529, IEC 62262, EN 62368-1



elsitel

Prof. Dr. Ahmet Taner Kışlalı Mah. 2856. Sk. No:1 Çankaya - Ankara - Türkiye
T. +90 312 446 3630 F. +90 312 446 3633 W. www.elsitel.com.tr M. info@elsitel.com.tr

References: Ankara-Sivas High Speed Train Line (Kayaş-Yerköy Line Section), Gaziray, Ankara Station Complex, Baskentray, Eminönü-Alibeyköy Tram Line, Üsküdar-Çekmeköy Metro, Dudullu-Bostancı Metro