

POLYMER INSULATED (PI) SERIES CONSTANT WATT TECHNOLOGY

INTRODUCTION

The most proven and reliable range of Santo XPI heating systems is the industry-preferred solution when circuit lengths exceed the ratings of parallel heating cables and the number of power supply points is a constraint.

Operating to voltages up to 750 V

Temperature maintenance up to 200°C

Exposure temperatures up to 300°C

Circuit lengths up to 5 kilometres

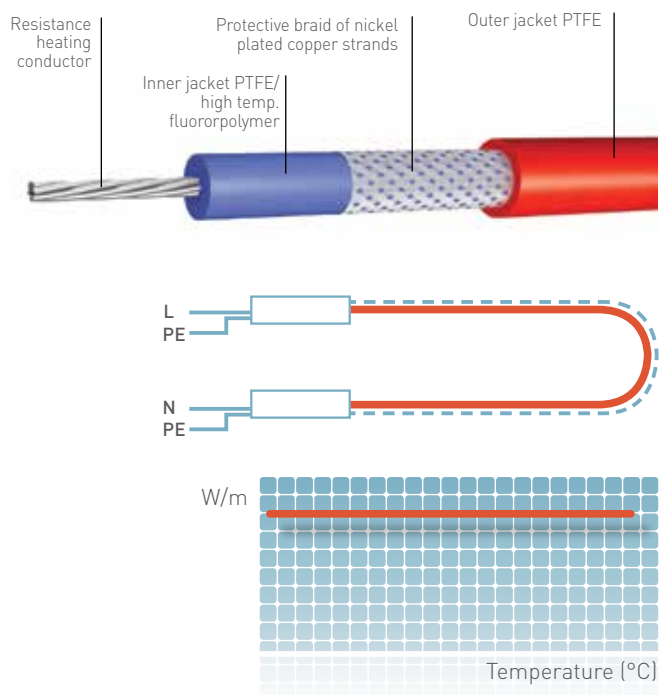
CONSTRUCTION

The stranded high temperature conductor is nickel plated to ensure a long life at elevated temperatures in corrosive environments. It is electrically isolated using an innovative sandwich construction of selected high-temperature fluoropolymers. A braid of nickel plated copper strands provides extra mechanical protection as well as a low Ohmic resistance earth path. A final PTFE jacket ensures optimum chemical resistance and highest temperature withstand capabilities.

HOW IT WORKS

Heat is generated in the central conductor through the principle of Ohmic resistance heating. A variety of conductor materials is used, depending on the specific resistance requirements.

Power output and temperature of a PI series heating system depend on the specific application. Design parameters including type/resistance used, circuit length, applied voltage and electrical configuration directly influence the performance of the heating system. Design and product selection should be carried out by qualified personnel using appropriate design software. Any change to these parameters can be critical and requires a re-validation of the design.



BENEFITS



LARGE VARIETY OF RESISTANCES

SANTO XPI heating cables are available in a very wide resistance range to meet the requirements of the broadest range of applications.

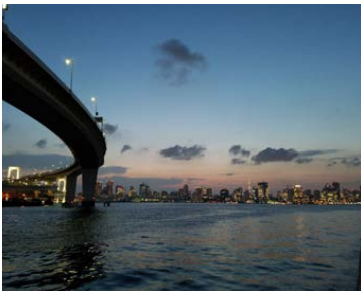
EASY TERMINATION ON-SITE

They can easily be terminated in the field. The fabrication method keeps the cables very flexible and allows for easy stripping while printed metre marks facilitate on-site handling.



MAXIMUM CHEMICAL RESISTANCE OF PTFE

The use of PTFE provides maximum chemical resistance and ensures the highest lifetime insulation resistance over the entire temperature.



APPLICATIONS

PI heating systems can be used for applications involving maintain temperatures up to 200°C and exposure temperatures up to 300°C. Maximised circuit lengths can significantly reduce the total installed cost.

REFINERIES

Crude oil gathering lines
(viscosity control)

Off-site crude oil lines

Fuel oil lines

Sulphur lines
(viscosity control & melting)

Transfer lines

Caustic soda lines

Waste water lines

NATURAL GAS PLANTS

Natural gas lines
(condensation prevention)

Sulphur lines
(viscosity control & melting)

Transfer lines

Caustic soda lines

Waste water lines

GENERAL INDUSTRIAL FACILITIES

Tank farms

Storage facilities

Bitumen lines

Product transfer lines

Frost protection of long transfer lines