

# NATIONWIDE SERVICE CENTRE FOR POINT HEATING SYSTEMS

THE PINTSCH ABEN CENTRAL MONITORING SYSTEM (PA CMS) IS A CONTROL SYSTEM FOR THE MAINTENANCE MANAGEMENT OF GEOGRAPHICALLY EXTENSIVE SWITCH POINT HEATING SYSTEMS. THANKS TO THE INTEGRATED OPEN PROTOCOL STANDARD IT IS POSSIBLE TO CONNECT POINT HEATING SYSTEMS SUPPLIED BY VARIOUS MANUFACTURERS.

## INTRODUCTION

Safe railway traffic must be assured at any time of year, especially during the winter season. Snow and ice build-up between the stock and switch rails can cause malfunction of the signalling system and increase the risk of damage and derailment. Switch point heating systems eliminate service interruptions and equipment failure caused by ice and snow in switches. *PINTSCH ABEN* located in the Netherlands and Germany is now one of the leading manufacturers of electric and gas-infrared point heating systems in Europe. The integrated systems are developed, manufactured and installed by *PINTSCH ABEN* for the purpose of providing an innovative and economical single source solution to switch point heating. Climatological conditions, availability and cost of energy determine the optimal system choice. Both systems can be supplied with local control or fully remotely controlled and monitored. In standard setting the systems operate automatically by detecting rail-/ambient temperatures, snow, and moisture. *PINTSCH ABEN* is the supplier of the German Railways DBAG, Swiss Railways SBB, Dutch Railways NS and Italian Railways FS. New export markets were developed in Norway, Poland, the Baltic States, Russian Federation and China.

## REMOTE CONTROL AND MONITORING

For the remote control of switch point heating installations *PINTSCH ABEN* offers her *PA LINE* diagnosis, control and monitoring system which provides all possible levels of functionality that end users could require. The operating *PA LINE* software has been written specifically for points heating application in co-operation with expert engineers to guarantee reliability and stability where it counts on-track. *PA LINE* software offers unique data management, extrapolation and enables inter-operability with systems using other communication protocols. Furthermore *PA LINE* offers autonomous preventative maintenance capacity for electric systems. Any loss of heating capacity caused by worn or damaged strip heaters and cables is reported back to the operating software, generating (preventative) maintenance schedules which will reduce cost for maintenance considerably.



## CENTRAL MONITORING SYSTEM (PA CMS)

Key *PA LINE* feature is its open protocol standard which enables interoperation with systems using different communication protocols. By integrating a number of different communication protocols into *PA LINE*, *PINTSCH ABEN* developed a unique, high level control system known as Central Monitoring System or *PA CMS*. By linking together a large number of local systems and distributed networks that use different lines of communications and protocols, nationwide manageable control and monitoring is possible irrespective of applied brands or manufacturers. *PA CMS* can control 4000 switch point heating systems handling volumes up to 2,000,000 data points. *PA CMS* is scalable from a single workstation up to redundant multi-location systems. The supplied hardware includes server, SQL server, SQL data base and modem server with modem pool which can comprise 32 industrial standard data transmission devices. Decentralised workstations are connected to the *PA CMS* network by ISDN routers and communicate with modem or SQL server over TCP/IP. To ensure safe operation, *PA CMS* is only accessible through a password control that match with four levels of authorisation for controlling functions. Internet access to *PA CMS* is possible by installing the optional web server ■

### FOR MORE TECHNICAL INFORMATION

**Pintsch Aben B.V.**  
PO Box 63, NL-3600 AB Maarssen  
The Netherlands  
[www.pintschaben.com](http://www.pintschaben.com)

