ELEKTRA

- 170 installations in Austria
- 70 installations in Switzerland
- 50 installations in Hungary
- 20 installations in Bulgaria

ROUTE CONTROL

LOCKTRAC 6131 ELEKTRA
Electronic interlocking system
LockTrac 6131 ELEKTRA is an electronic interlocking system offering the highest levels of safety (SIL4) and availability. The system uses a modular system architecture with two different software channels and can be used for any size of interlocking. ELEKTRA also offers features such as remote control, automatic train operation and integrated block functionality, as well as interfaces to RBC (ETCS L2), AWS (automatic warning system) and other peripheral systems.

ARCHITECTURE AND FUNCTIONS
LockTrac 6131 ELEKTRA takes account of functional, safety and reliability aspects and is divided into three main units:

- Operating unit
- Central unit
- Peripheral unit

The operating unit displays the actual states of interlocking elements and operating functions on the operator’s panel and enables commands to be sent. Critical operations are supported by check boxes and operator confirmation.

The central unit verifies and processes the messages from interlocking elements as well as executing operator inputs taking exclusions and dependencies into consideration.

The peripheral unit transmits commands generated by the central unit to the field elements and communicates status information from the interlocking elements to the central unit.

Aside from the typical functions of an interlocking including block logic, the ELEKTRA system provides interfaces to safety-relevant peripheral systems such as neighbouring interlockings, central stations and substations, RBC (ETCS L2) and AWS (automatic warning system), as well as to available equipment or systems for maintenance and diagnosis.

SAFETY AND AVAILABILITY
LockTrac 6131 ELEKTRA meets the high safety requirements using two software channels with diverse programs which process all safety-relevant functions in parallel. ELEKTRA separates architectural issues for safety from those for availability which enables the system to be configured to meet particular customer needs and requirements.

Redundancy is a feature of every level of the ELEKTRA system in order to ensure continued operations in the event of component failure. The specially designed diagnosis device stores relevant information to allow efficient maintenance. It is also possible to access this information remotely.