



## LockTrac 6131 ELEKTRA

### Electronic Interlocking System

#### MAIN REFERENCES

- More than 120 installations for ÖBB in Austria
- More than 30 installations for SBB in Switzerland
- More than 30 installations for MÁV, BKV and GySEV in Hungary

LockTrac 6131 ELEKTRA is an electronic interlocking system offering the highest levels of safety and availability. It has a modular system architecture with two software channels and is based on modern microprocessor technology.

Besides basic interlocking functions, additional features include local and remote control, automatic train operation, integrated block functionality and an integrated diagnosis system.

LockTrac 6131 ELEKTRA can be upgraded to the features of a management operation system (NetTrac 6652 ELEKTRA-BOS).

It is approved according to CENELEC standards with Safety Integrity Level 4 (SIL 4).

Operating and monitoring is conveniently managed from central control equipment.

# > LockTrac 6131 ELEKTRA

## Main Functions

LockTrac 6131 ELEKTRA is composed of several computing units – linked with LAN – that carry out all functionality. The control equipment of the operator and the external installation are around this core.

LockTrac 6131 is designed by aspects of function, safety and reliability and is divided into three main units:

- the central unit
- the operating unit
- the peripheral unit

The central unit verifies and edits the interaction between elements or groups of element based on inputs by the operator.

The operating unit is the interface between the operator and the central unit. Using mouse and keyboard, the operator sends commands to the central unit.

The actual states of the elements or of groups of element are displayed in real time.

The peripheral unit converts commands generated by the central unit and transmits them to the field elements. Simultaneously information about the conditions of the external installation is transferred to the central unit.

Redundancy is used in all levels of the system.

A specially designed diagnosis device saves all relevant information to allow efficient maintenance in case of failure. Diagnosis information can also be transmitted to a remote diagnosis and maintenance centre.

To meet the high safety requirements, two software channels with diverse software are distinguished: the logic channel and the safety channel. After having processed all inputs in the logic channel, the data is checked in the safety channel before being transmitted externally.

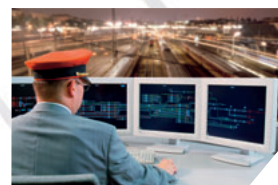
## Key Benefits

- High safety and availability
- Use of modern microprocessor technology
- Modular system architecture consisting of functional levels, safety channel and redundancies
- Standardised interfaces to peripheral components
- Local and remote control of the system
- Capable of operating distance stations by remote control
- Control of relay interlocking systems and integration of block equipment
- Efficient diagnosis and maintenance mechanisms
- Low life cycle cost
- Developed according to CENELEC standards SIL 4

By separating safety and availability, the system can be configured according to the special needs of the customer.

## Technical Features and configuration

- Identical system structure for all sizes of stations; extension by modular design
- Integration of line block – between two electronic interlocking systems or between electronic and relay interlocking systems
- Standardised serial interface to peripheral systems
- Efficient diagnosis and maintenance support
- Use of industrial standard POSIX interface
- Modern data transmission using optical fibre allowing remote control of train stations



**Thales**  
Security Solutions & Services Division

Contact: Thales Rail Signalling Solutions GesmbH  
Scheydgasse 41 • A-1211 Vienna - Austria • Tel.: +43 1 277 11 5779 • Fax: +43 1 277 11 3614