LockTrac 6111 ESTW L90 is an electronic interlocking system (ESTW) designed for meeting the highest safety requirements. For more than 25 years it has been successfully operated by national and international customers in both mainline/high-speed railway networks and urban rail networks. LockTrac 6111 ESTW L90 systems currently in service switch over 20,000 signals and more than 8,000 points.

LockTrac 6111 ESTW L90 is a crucial element of the network infrastructure of railway operators optimising network throughput, on-time operations and life cycle costs.
LockTrac 6111 ESTW L90
Electronic Interlocking System

FEATURES
- Safety Integrity Level SIL 4
- Safety principle: 2-out-of-3 computer architecture, 2-channel safety system
- Type approvals: component-based Mü 8004, CENELEC
- Route protection and supervision: route table principle
- Conventional or fully electronic control of field elements such as signals, points, axle counters, etc.
- Interfaces to:
  - Electronic interlocking systems
  - Various block types
  - Train protection systems, e.g. train control system (LZB) and European Train Control System (ETCS)
  - Level crossing systems
  - Operating and display systems, train describer/train routing and other train management systems via standard user interface (SBS)
  - Central maintenance/diagnosis system
- Operation and display
  - Central or decentral operation
  - Vital display
  - Area view and zoom display
  - Integration of safe remote control of relay interlocking systems (NetTrac 6654 F 190)
- Configurations
  - Central
  - Decentral connection of remote units via open or closed network, flexible switching distances
  - Support of geographic redundancy
- High industrialisation level, well-proven in numerous projects
  - Separation of system and project data
  - Tool-assisted configuration and data generation
  - Optimised test facilities
  - Use of standard boards
  - Extensive pre-assembly in own factory
  - Flexible modification/expansion possibilities

KEY BENEFITS
- Highest safety level SIL 4
- High availability by 2-out-of-3 computer architecture
- Support of LCC optimisations
- Easy integration into existing infrastructures both on the field level and on the operating level
- System scalability
- Flexible switching distances
- Large scope of functions including high flexibility of customer adaptation
- Year-long well-proven system with consistent technology evolution

REFERENCES
- DB AG – Germany
- CFL – Luxembourg
- CFR – Romania
- IR – Israel
- REFER – Portugal
- RENFE – Spain

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