UNILOCK

Controll Systems for Freight, Urban and Mixed Traffic

Description

The application of the UNILOCK systems is in local transport and long distance transport. The system can be realized with a safety integrity level up to SIL3 depending on the requirements. The control Cabinet modules provide universal mounting possibilities, e.g. on concrete and metal foundation or as direct cable duct mounting.

UNILOCK includes the following variants:

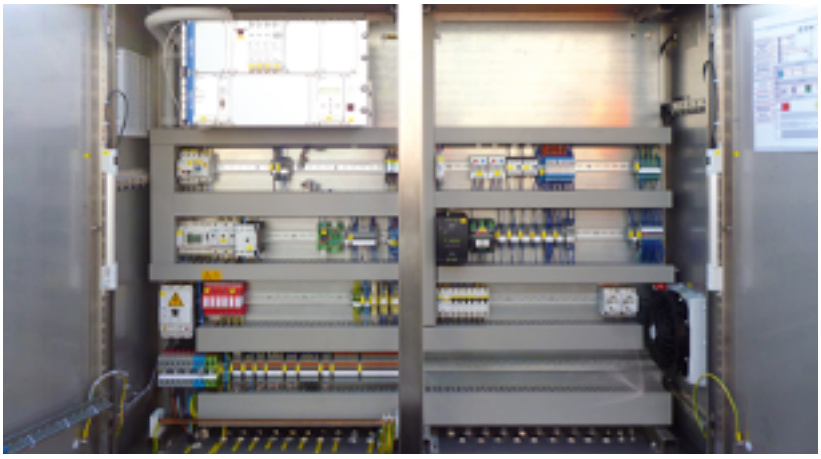
- UNILOCK DEPOT
- UNILOCK TCS/EWS
- UNILOCK EOW
- UNILOCK ATP/TUZ
- UNILOCK SCS/FSA
- UNILOCK BÜ/LC
- UNILOCK FWA

System advantages

- High availability
- Flexible installation in all signal designs and
- point designs
- Reduced maintenance effort
- Fast and easy installation
- Low life cycle costs
- Modern Technology with enhanced diagnosis possibilities
- Well-tested design with an excellent record of
- success in all climatic conditions.
- Modular design, subsequent enhancements of the
- system can be made with little effort
- Customized solutions even for difficult use cases
- Supply Voltage from 24 V until 750 V AC and DC
- Also from renewable energies
- Easy mounting of the modules and simple connection of the cables and wires to the module

voestalpine Signaling
www.voestalpine.com/railway-systems

voestalpine
ONE STEP AHEAD.



UNILOCK
ONE PRODUCT – MANY VARIANTS

UNILOCK DEPOT

The UNILOCK DEPOT system focuses on a holistic solution that independently regulates all vehicle traffic within the depot boundaries

- Different concepts for switch the point and making shunting routes can be implemented here.
- Shunting routes can be requested with the vehicle communication, the dispatcher and the manual control elements

By separating the system into different ranges is a clear selection and different operation rights are possible Moreover, the use and involvement of superior or exis-ting sub systems are possible.

UNILOCK TCS/EWS – Turnout Control System

Turnout Control Systems are self-contained turnout controls that are independent from superior systems (visualizations). Furthermore, additional systems like point heating systems, vehicle communication, track circuits etc. are evaluated and controlled by the system.

- Switch commands can be given locally with a control panel in the signal
- The systems can control and monitor a small to medium range up to 4 points
- It is possible to network individual TCS with each other

UNILOCK EOW – Locally electric operated Turnout

- In shunting areas with low velocity the EOW enable the central or decentral control and monitoring of one or more points
- The operation is done either by means of push buttons or display boards in the track
- EOW usually have no superior controls

UNILOCK ATP/TUZ – Automatic Train Protection

In principle, ATP systems are used to monitor train movements on single-track sections with train control operation. They support the dispatcher and can avoid accidents by actively switching on train stop.

- For safe train detection axle counters are used and track magnets are used for train protection
- Besides the central operation place (depending on which form of train protection is used) the modules/ train stations are connected amongst each other
- Shunting works in a train station are also considered by the system

voestalpine Signaling
www.voestalpine.com/railway-systems

voestalpine
ONE STEP AHEAD.

UNILOCK
ONE PRODUCT – MANY VARIANTS

UNILOCK SCS/FSA – Signaling Control System

» UNILOCK SCS are used for local transport

» They control the drive commands for the individual trams with driving signals

» With track formation and monitoring, they avoid collisions or dangerous driving situations

UNILOCK BÜ/LC – Level Crossing

» At the UNILOCK Level Crossing (LC) the traffic route for motor vehicles of all kinds is blocked for the period of the train crossing

» Pedestrian or cyclist crossings can be integrated here

» Train rides are e.g. detected via axle counters and the control program of the barriers and signals are triggered

» The control can be done independently via superior control systems

UNILOCK FWA – Pedestrian Warning

The pedestrian warning system allows the safe crossing of rail bound routes.

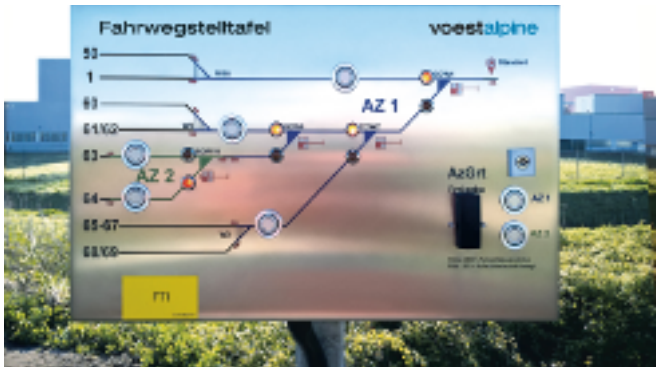
» Similar to the UNILOCK LC system, special guidelines apply here

» Through the use of flasher lamps and acoustic signals, people are warned visually and acoustically by an approaching vehicle

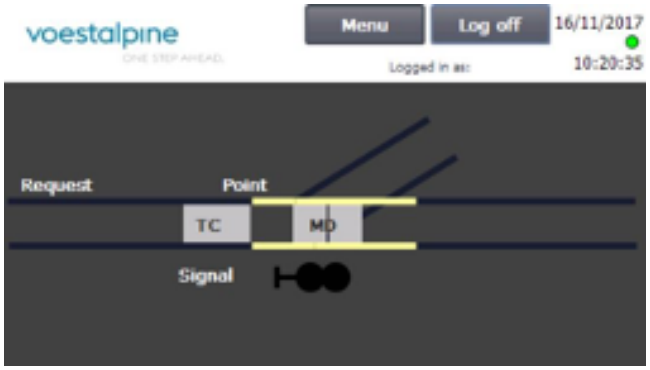
» The signals are respectively switched with track switching devices

» Mostly with track circuits or axle counter

Level Crossing in Saudi-Arabia



Track Control Panel



HMI Visualization

EOW Operating Point – Push Button

voestalpine Signaling
www.voestalpine.com/railway-systems

voestalpine
ONE STEP AHEAD.