TrainSWing LZA

Automatic train control for metro (ATC)

- **User friendly and professional automated operation**
- **Meeting high safety and reliability standards**
- **Traffic flow improvement**
- **Optimisation of energy consumption**
- **Competitive pricing**
- **Possible upgrade to CBTC**

GENERAL DESCRIPTION

TrainSWing LZA (further LZA) is modern electronic system designed for automation and securing of train operation. LZA can be used in suburban, subway and underground rail networks.

Under supervision of a driver, LZA provides automatic control of train operation while following a train traffic diagram (train speed control) and optimising energy consumption.

Function of unmanned turn of train is implemented in LZA.

BASIC TECHNICAL DESCRIPTION

LZA receives data from existing signalling and interlocking equipment.

Information on permitted speed (at relevant and adjacent track section), number of non-occupied track circuits to the closest train or other obstacle on line is assigned to individual track sections. Information is transmitted to mobile part of LZA (driver's cab) by telegrams via radio or transmitting loops installed between rails.

Automatic train control can be combined with manual control upon request.

Improper intervention by an operator/driver is eliminated automatically.

Headway can be reduced to 90 seconds.

LZA consists of two subsystems:
- Automatic train protection (ATP) of TrainSWing SOP-2P type – secures operational safety

- Automatic train operation (ATO) of DriveSWing ACBM3 type – secures the automation of train set operation and other functions

System such conceived (ATP/ATO) represents a developed control system of ATC (Automatic Train Control) class. LZA ensures failsafe, smooth and efficient train movements operated by single train driver whose work is considerably simplified.

LZA is equipped with common data transmission channel through which the data is transmitted from stationary equipment to train sets.

All transmitted data for both ATP and ATO are secured. ATP subsystem can also be operated separately.