

## RBA-10 RADIOBLOCK FOR SECONDARY LINES

- Control and signalling system for secondary lines
- Traffic situations on the controlled line transferred automatically to the superior control systems
- Minimization of investment and operating costs
- Remote dispatcher's workplace



### General Description

RBA-10 radioblock has been designed to safeguard secondary lines. The main purpose of the system is to increase traffic safety along these lines. Using special technical facilities the system foresees and prevents errors of the operator. The system is designed to minimize investment and operating cost. This is achieved, in particular, by using the existing equipment deployed on the secondary lines which are integrated adequately in the system.

### Basic Technical Description

Functioning of technical elements in the RBA-10 system:

- prevents generation of conflicting permissions
- displays current state of the entire controlled section to the dispatcher
- keeps an electronic traffic documentation and transmission of data regarding the controlled section into the superior control systems
- displays the state of handed over permission for the train driver in the railway vehicle
- prevents the train movement without permission
- with general navigation system GPS it controls actions of the train driver related to positioning of the train and movement of the train according to the passed permission. In the case of non-compliance the system warns the train driver or stops the train
- in stations with manually operating points the system, it controls basic position of points after manipulation
- transmits emergency STOP signals to trains in case of danger
- by alternative actions of the dispatcher it enables driving and operation of trains not equipped with a radioblock terminal
- voice communication facilities for communication between dispatcher and a train driver

In the dispatcher's workplace the following technical facilities are installed for the needs of the radioblock:

- radioblock centre office (RBC)
- GTN (graphic-technological overlay)
- radio voice communication working place and technical facilities for fixed line voice communication in selected destinations
- voice recorder

The system consists of the following functional and technological units:

- radioblock centre office (RBS-100) and other technical facilities at the dispatcher's workplace
- radioblock terminal and communication facilities on the railway vehicle (RBV-100)
- data communication facilities



### Basic Technical Parameters

System installation	single track line
Max. line speed	100 km/h it is limited according to the degree and method of points safeguarding
Max. number of stations/trains controlled by one centre	35 stations, 16 trains simultaneously
Max. number of running tracks in the 1 station	4
Operating and checking the points and derailleurs in radioblock stations	self-normalising points with checking of the end position displayed on the point signals manually operated points in radioblock stations, electromotive point machines controlled from RBS-100
Min. GSM signal coverage	approx. 300 m before and behind the station

