

ETCS testing

The centre provides facilities for tests of ETCS-fitted vehicles of ETCS L0, LNTC, L1 and L2 application levels, including combinations of vehicles and transitions between them. Thanks to a pair of RBCs (radio block centres), all typical operational scenarios corresponding to ETCS-fitted tracks in the Czech Republic can be set up on the infrastructure at the VUZ Velim Test Centre.

Installed balises (both fixed and switchable) can be used to check BTM function and odometry systems. The facility is ready to perform compatibility tests, or ESC for the Czech Republic (ESC-CZ-01 and ESC-CZ-02 according to SŽDC PPD-2/2018). The test infrastructure includes also tools enabling verification of functionality of on-board units of the Czech national train protection system: LS line system.

The development of the ETCS test facilities at the VUZ Velim Test Track started in 2015 and since then it has been continuously modernized to cope with the latest requirements and ERTMS (European Railway Traffic Management System) trends.

INSTALLED TECHNOLOGY:

- › Conventional axle counters (type AzF Frauscher, in total 26 track sections within the entire test circuit)
- › Electronic interlocking equipment that provides RBC data to ETCS and creates simulated operational scenarios in accordance with the test requirements (with no responsibility for the safety of the actual traffic at the VUZ Velim Test Centre)
- › It is possible to set up simulated statuses of interlocking device track elements to create any desired operational situations (such as occupation of detection sections, switch positions, symbols on signal devices, etc.)
- › 2 RBCs, configurable and complying with Baseline 2 (version 2.3.0d) or Baseline 3 (version 3.6.0, system version ETCS 1.1) specifications
- › Eurobalises, type Siemens S21 and LEU units by Thales



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