DiagSWing LDS-3

Local diagnostic system

- **Centralized state and measuring diagnostics of signalling systems and other technology**
- **Warning diagnostic alerts in real time (email, sms)**
- **Preventive and predictive maintenance (condition-based maintenance)**
- **Client-Server architecture ready for upgrade with other diagnosed equipment and transmission to the dispatcher and maintenance centres**
- **Provides reliable and continuously updated data for visualisation, archiving and further analysis**
- **Local and remote access to data via Windows applications or web browsers**

GENERAL DESCRIPTION

DiagSWing LDS-3 (further LDS-3) is a modular diagnostics of signalling equipment designed for on-line gathering, classification, checking and monitoring of operational data of locally accessible diagnosed equipment - their states, events and measurable values. This data is automatically archived for reverse analysis.

Portfolio of diagnosed equipment includes all signalling systems from AŽD Praha s.r.o. production.

Required measured values are received from:
- DiagSWing DISTA
- DiagSWing DMS
- DiagSWing BDA
- intelligent sensors

Portfolio of diagnosed equipment can be further expanded by other equipment meeting requirements for mutual communication interface and protocol.

BASIC TECHNICAL DESCRIPTION

LDS-3 consists of diagnostic local server (DLS) the main task of which is data gathering, long-term archiving, generating the diagnostic reports based on data analysis and accessing data to the local diagnostic computer (DLA).

In the upgraded version DLS allows sending service alerts to the maintenance employees through the SMS, email etc.

DLA function is visualisation of current diagnostic data including its exact localization and processing of archived data for customer's needs.

DLA allows the user to define limits of monitored values (variables), to classify a failure occurred and to raise an alert in case of exceeding these limits.

Local diagnostic computer DLA can be:
- standard workstation
- application in notebook
- web browser (smartphone, tablet)

Complete LDS-3 data can be transmitted to central systems, e.g. DiagSWing GDS, which serves as centralized maintenance centre for supervision of regional / national railway network.

Measuring interface for individual diagnosed signalling equipment must ensure that LDS-3 cannot influence their operation.

Unidirectional separation of communication data interface between LDS-3

and individual signalling equipment prevents influencing the diagnosed system and maintains separation and safety of the system.

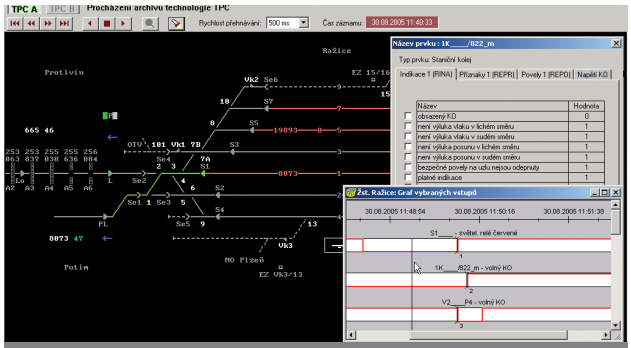
In co-operation with DiagSWing DISTA measuring device or with DiagSWing DMS distributed measuring units LDS-3 can replace most of periodic measurements carried out manually by maintenance employees.

Typically measured values are as follows:

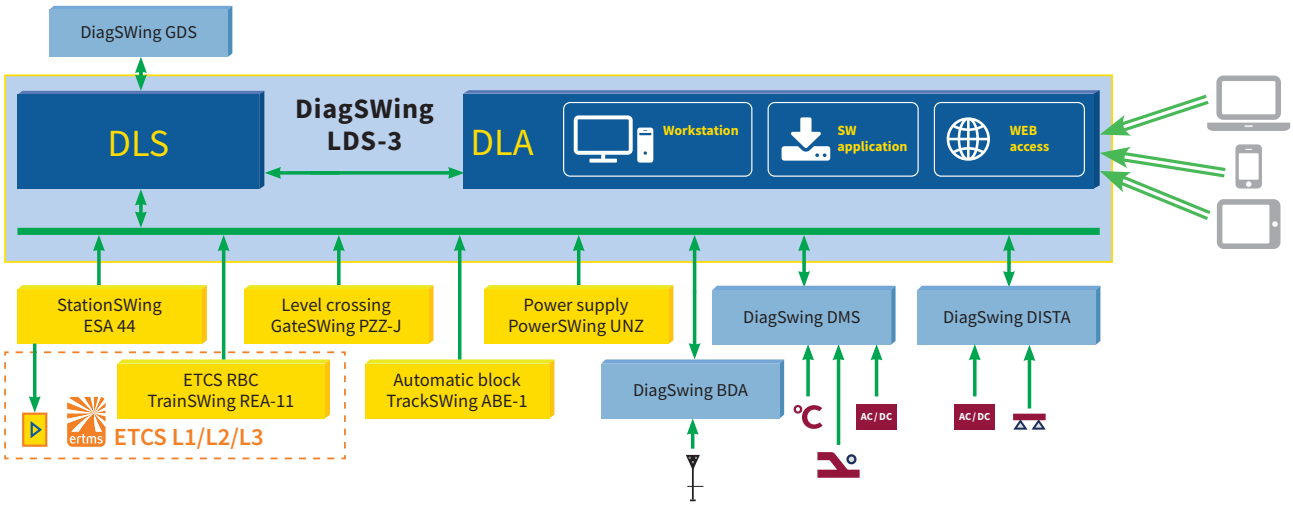
- temperature of technological rooms, cabinets and computers
- AC and DC voltage of the power supply sets and track circuits
- insulation resistance of power supply systems and track circuits
- power input of motors of point machines and derailers
- status of track circuit coding

BASIC TECHNICAL PARAMETERS

Power supply	AC 230 V ±10 %, 50 Hz; DC 24 V ± 20 %
Temperature range	climatic category T1 according to EN 50 125-3
Humidity	10 % to 80 %
EMC compliance	EN 50121-4, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-6-4
Service life	minimum 25 years



Visualization of LDS-3 archived data



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