



DMS DISTRIBUTED MEASUREMENT SYSTEM AND BDA RECORDING DEVICE

- Replacement of regular measurements performed manually by the maintenance staff
- Detection of faults or investigation of accident events
- Modem units used for data transmission via railway track cables



General Description

DMS distributed measurement system comprises several units primarily designed as an ancillary tool of the local LDS-3 diagnostic system. BDA recording device is designed for level crossing diagnostics and consequent transmission of data to LDS-3. Units can be used independently or as subsystems of individual equipment.

Basic Technical Description

- GOS Module is designed for galvanic separation of Ethernet networks. Its basis is insulation transformers with 4 kV electric strength and bandwidth compliant with 10BASE-T standard.
- 4xD-SUB9 Module is designed for change-over from 4 female connectors D-SUB9 to spring terminal clips.

- DMS-RU Module contains clamping and termination resistors for enhancing quality of transmitted signals in differential communication links within interlocking rooms.
- DMS-INJ Module is used for connecting DC 24 V voltage to RJ45 connectors to supply terminal equipment communicating via Ethernet.
- NMOD2 Unit is a modem transmitting in superaudio band at 2,4 kbps transmission rate used for semi-duplex data transmission over a metallic conductor pair with preserved bus topology. The unit is equipped by RS232 communication interface produced in various modifications.
- DMS-T/RSX and DMS-T/ETH Units are designed for measuring the indoor temperature. The units provide choice between RS485 and RS232 communication interfaces or Ethernet.
- DMS-T/TPC and DMS-T/STP Units are designed for measuring of two temperatures, scanning the fan condition in the computer cases, scanning the cabinet door closure or checking the contact condition e. g. air-condition unit operation. The units are equipped with RS485 communication interface.
- DMS-U and DMS-U2 Units are designed for measuring of voltages in range DC 6 V to 40 V (on one input) and voltage in range AC 0 V to 300 VEF, 50 Hz (on three





inputs). The units are equipped with the RS485 communication interface.

- DMS-HIS and DMS-HIS-120 units are designed for measuring of insulation resistance of up to four IT systems against earth and indication of its drop under a tolerable limit value. The units can replace the existing HIS3 insulation sentry units.
- DMS-EP unit is designed for recording the effective input of up to four independent electro-motive EP 600 point machines. Simultaneously the unit is also used for measuring the insulation resistance of power cables and point machines against earth and indication of its drop under a tolerable limit value. The unit is equipped with RS485 communication interface.
- BDA recording device is used for level crossing diagnostics.
- JDA2 control unit records operating and failure states of relay level crossing systems or it is used for downloading an archive from relevant electronic level crossing control unit.
- The JV unit is used for connection to free relay contacts.

Basic Technical Parameters

Standard power supply	DC 24 V \pm 20 %
Temperature range (DMS-RU module and DMS-T/TPC, DMS-T/STP, DMS-EP units)	-5 °C to +55 °C
Temperature range (GOS, 4xD-SUB9, DMS-INJ modules and NMOD2, DMS-T/RXS, DMS-T/EKO, DMS-T/ETH, DMS-U, DMS-U2, DMS-HIS, DMS-HIS-120, JDA2 units, JV GOS, 4xD-SUB9, DMS-INJ modules and NMOD2, DMS-T/RXS, DMS-T/EKO, DMS-T/ETH, DMS-U, DMS-U2, DMS-HIS, DMS-HIS-120, JDA2, JV units)	-25 °C to +70 °C
Relative humidity	10 to 80 %
Electromagnetic compatibility	technology rooms with redundant power supply

