

Digital optical transmission system DOtech Type LIN26 for LINBUS diagnosis: Technical specification



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Principle of transmission

The transmission system consists of two identical transceiver circuits. The supply is done by an external battery U_{bat} . The system serves for the bi-directional optical transmission of digital LINBUS signals in harsh electromagnetic environments and for bus simulations during emission tests.

Technical data

System

- o Two identical transceivers, interchangeable
- o Fault LED
- o Transmitter and receiver are usable on different voltage levels
- o manual switching of the pull-up-resistors for operation in master- and slave-mode and display via LEDs
- o Transmission capability: DC – 20 kBaud
- o U_{bat} : $5 \text{ V} < U_{\text{bat}} < 35 \text{ V}$
- o Guaranteed susceptibility: $\hat{E} = 400 \text{ V/m}$
- o Pull-up-resistor
 - master mode: 1 kOhm
- o Pull-up-resistor
 - slave mode: 20 kOhm
- o Input capacitance of the LINBUS: $C_{\text{in}} < 200 \text{ pF}$
- o Housing: aluminium, connected to ground
- o Housing dimensions: 100 x 80 x 50 mm
- o Electrical connectors:

LINBUS	female connector, green
U_{bat}	female connector, red
Ground	female connector, black
- o Optical connectors:

RX	receiver input
TX	transmitter output

Fibre optics

Style: Duplex multimode 62,5/125 μm
 Connectors (RX and TX): FSMA