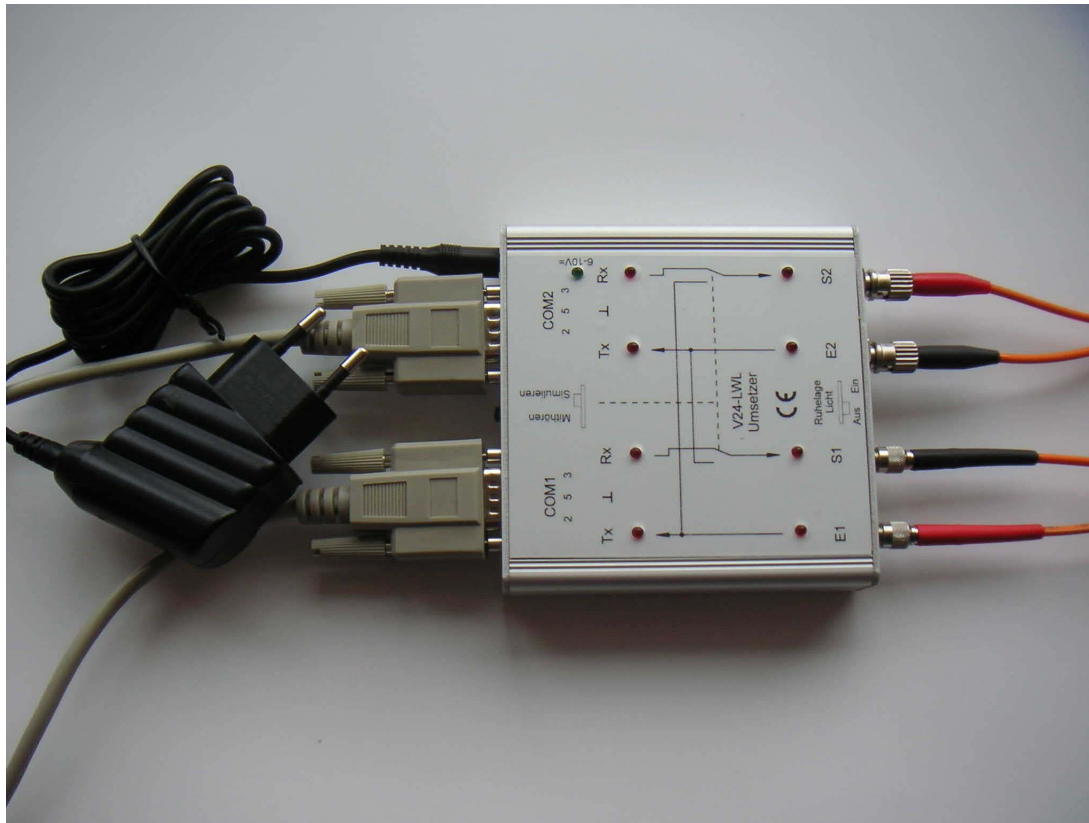


RS232 <> Fiber Optic interface converter



Functioning

The interface converter converts two RS232 interfaces (COM₁ and COM₂) into two fiber-optic interfaces. Each interface converts the Transmitter (Tx) and Receiver (Rx) signal. All other signals are not relevant. The maximum transmission speed is 64 kBaud. The converter operates independently of the data format used.

With the converter, you can simulate two protection devices or listen to the control and monitoring direction simultaneously. According to the IEC 60870-5-103 standard, the light used has a wavelength of 850 nm. Ordinary duplex multi-mode optical cable of the type 62.5/125 µm are connected by means of the FO connectors.

Housing and connections

The converter is located in an aluminum housing. The RS232 cables are connected by means of two DB9 sockets with a DCE assignment. In this way, a standard cable wired in a 1 to 1 ratio can be used for connection.

With FO cables, two FSMA plug-in connectors are available for COM₁ and two ST plug-in connectors are available for COM₂. A light-emitting diode is assigned to each plug-in connector. It lights up with "Light ON".

In this way, FSMA or ST connections can be simulated and listened (without intermediate coupling). A duplex cable with FSMA-ST connectors is required for listening. A plug-in power supply unit ensures power supply. The existing voltage is indicated by means of a light-emitting diode.

Operating modes

The converter can be used for simulation or for listening. The operating mode is set by actuating a switch. During simulation, the E_1 and S_1 FO connections are assigned to the COM_1 interface, whereas the E_2 and S_2 connections are assigned to COM_2 . The COM interface data are converted transparently to the FO in both directions.

In the listening mode, the data available on E_1 are sent automatically to S_2 . COM_1 allows for listening the data available on RxD . All data available on E_2 are sent to S_1 and can be listened on COM_2 , RxD . The TxD signals of COM_1 and COM_2 are disconnected.

The line idle position on the optical cable can be set by means of a second switch. The "OFF" position means "Light OFF" in the line idle position, whereas the "ON" position means "Light ON" in the line idle position. The switch is used for all FO connections.

Devices equipped with SC connectors can be connected with ST-SC connectors or FSMA-SC connectors via FO cables. An ST-SC coupling is required for listening.

Technical data

Power supply:	6-10 V DC
Current input:	Maximal 200 mA with 10V DC
Plug-in power supply unit:	230V AC +/- 10%
Baud rate:	100 - 64000 Baud
Transmitted signals:	RxD, TxD
RS232 connection:	Two female 9-pole DSUB sockets
FO connection:	Two FSMA and two ST (B-FOC) sockets Multi-mode glass fiber cable
Wavelength:	850 nm
Housing:	Aluminum housing
Dimensions:	105 x 100 x 26 mm
Weight:	Approx. 400 g incl. power supply unit

Included in the scope of delivery:

- Ø one RS232 <> FO converter
- Ø one AC plug-in power supply unit, 100-240 V~, 50-60 Hz, 6 VDC
- Ø two RS232 cables, 9-pole, DSUB