Let's communicate

RS-232 to Multimode Fiber Optic Converter
ELO E146, ELO E147

Characteristics

Miniature case
TxD, RxD transferring
Max. data rate 115.2 kbps
Supply voltage 6 V DC
Max range 2 km

Introduction

RS-232 is the interface with asymmetric signals. The maximum load capacitance can be 2500 pF. It corresponds to the 50m of the typical twisted pair cable.
The load impedance can be 3-7 kiloohm and it enables to induce the disturbing impulses even from the soft supplies into the cable.
The asymmetric signals can not eliminate the influence of the signal grand's potential drifts.
Therefore the RS-232 interface is destined for the point-to-point connection at 15 m distance. The end devices (DTE) must have the same signal grand's potential.

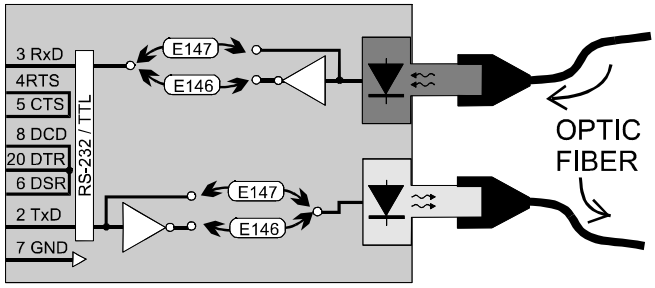
Using Fiber Optic Converter

The fiber optic cable is resistant against the electrical disturbances and against the influences of the atmospheric electricity. It gives the maximum protection of the DTE and the high reliability of communication.

Principles of Operation

ELO E146, E147 converts TxD signal to transmitting optic cable and the signal from the receiving cable converts to RxD signal. This way the full duplex connection can be realized.
In the idle mode the E146 model's transmitter lights and E147, does not light.
The maximum transmission speed is 115 200 bps.
The control and status signals are not transmitted. There are the local loops RTS-CTS and DTR-DSR-DCD.

Block diagram



Specification

Electrical Parameters

Interface	RS-232
Transmitted signals	TxD a RxD,
Control signals	local loops RTS-CTS DTR-DSR-DCD,
RS-232 Connector	DB25, DCE
Communication mode	full duplex
Maximum data rate	115 200 bps
Minimum data rate	50 bps

Optical parameters

Wave length	820 nm
Fiber optic cable	50/125 or 62.5/125 µm multimode
Connectors	ST
Idle state of E146 (E147)	light (dark)
Maximum range	up to 2km

Other

Power Supply	External DC supply 6V/150mA
Dimension: Width	55 mm
Length	75 mm
Height	16 mm
Weight	40 g
Stocking temperature	- 10 ° to +55 ° C
Working temperature	+ 0° to +50° C
Humidity	0 – 85% (non-condensing)

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