

DL-485

RS485-Fiber Optic System



System description

The fiber optic systems DL-485 connect field bus systems with RS485 interfaces. Optical linking allows safe data transfer and is suitable for PROFIBUS, MODBUS, MODNET-1/ SFB, BIT-BUS, SAIA-S-BUS and several manufacturer-specific systems.

With the help of this innovative system optical bus structures, star structures, tree structures as well as mixed structures are possible.

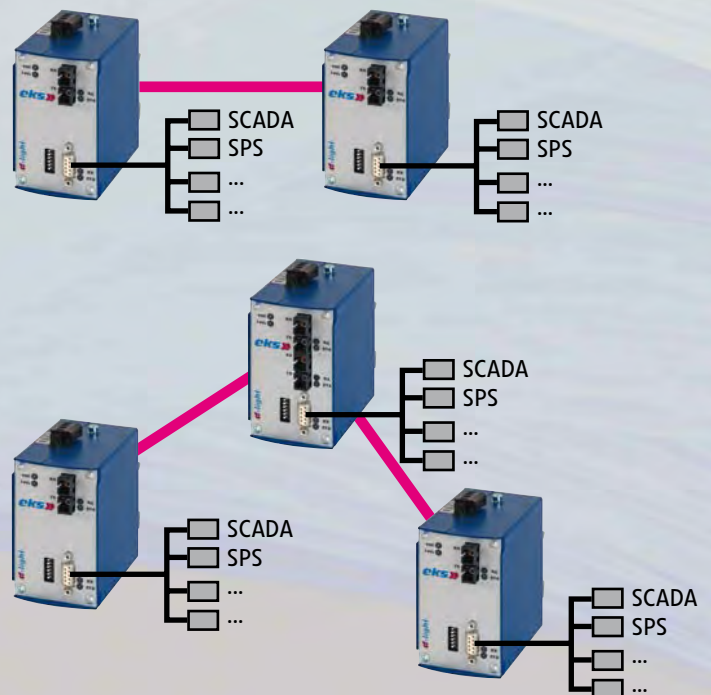
Important performance features of the transfer with POF, HCS, multimode or singlemode fiber optic are the electromagnetic ruggedness, the potential separation of transmitter and receiver, as well as ranges up to 40km between two fiber optic systems. LED's and potential-free contacts (optional) of a fault detector relay are able to signal defective states.

In addition to ST, SC, SC-BIDI and SMA, also the optical connection type E2000 is available.

Furthermore RS485- fiber optic systems are available in the following designs:



Application



Ordering Information



System								
DL-485/	6-P-ST	6-P-SM	13-M-ST	13-M-SC	13-M-SC-BIDI	13-S-ST-L	13-S-SC-L	13-S-SC-BIDI
Ordering-No. (1 FX)	0 100 06101	0 100 06102	0 100 06121	0 100 06123	0 100 06123-BIDI	0 100 06131	0 100 06133	0 100 06133-BIDI
DL-485/	2x6-P-ST	2x6-P-SM	2x13-M-ST	2x13-M-SC	2x13-M-SC-BIDI	2x13-S-ST-L	2x13-S-SC-L	2x13-S-SC-BIDI
Ordering-No. (2 FX)	0 100 06151	0 100 06152	0 100 06171	0 100 06173	0 100 06173-BIDI	0 100 06181	0 100 06183	0 100 06183-BIDI
Fiber Connector	ST	SMA	ST	SC	SC	ST	SC	SC

Fiber					
Fiber Type	POF 980/1000 μm	Multi-Mode 62,5 (50) /125 μm			Single-Mode 9/125 μm
Optical Budget	12 dB	13dB	13dB	17 dB	17 dB
Max. Distance	50 m (180 dB/km)	5 km (1 dB/km)	5 km (1 dB/km)	15 km (0,4 dB/km)	15 km (0,4 dB/km)
Wavelength	650 nm	1300 nm	1300/1500 nm	1300 nm	1300/1500 nm

Interface	
Data Rate max.	min. 1,2KBit/s up to max. 1,5 MBit/s (divided by the number of fiber optic segments)
Operation Mode	halfduplex
Termination	switchable: none or resistor network (Rw + Rpd + Rpu)
Max. Distance	1.200m (9,6 – 187,5 KBit/s), 400m (500 KBit/s), 200m (1,5 MBit/s)
Signal Delay	RS485 \leftrightarrow LWL : 400ns Tx \leftrightarrow Rx : 500ns
Connector	9 pol. SUB-D female / 6 pol. screw terminal block

Power Supply	
Status - LED's	Power Supply (green) / Data Receive (yellow) / Status (red)
Operating Voltage	24 VDC (10 VDC .. 30 VDC), other voltages on request
Current Consumption	200 mA (1 FX) / 250 mA (2 FX)
Potential Separation	500 VDC (24 VDC \rightarrow RS485)

Environmental	
Operating Temperature	-10°C - +55°C
Storage Temperature	-40°C - +85°C
EMC	EN61000-6-2 / EN55022 Class B +A1 + A2

Mechanical	
Weight	500 g
Housing	stainless steel, powder-coated
Dimensions (H x B x T)	115 mm x 61 mm x 113 mm

