DL–485RS
RS485-Fiber Optic System Redundant

System description

The fiber-optic systems DL-485RS secure the optical data transfer within RS485-field bus networks up to a data speed of 19,2KBit/s. Our special multifunctional fiber optic system also allows the construction of optical ring structures.
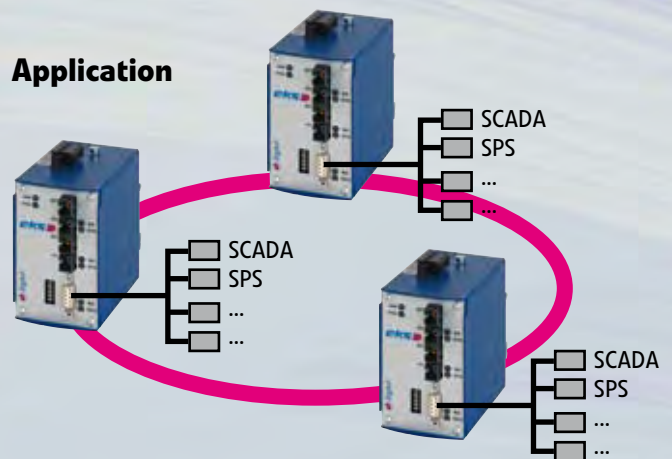
The system of this series is especially suitable for applications with strict safety-related requirements as for instance: process industry, tunnel ventilation systems and railway technology.

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 and SC the optical connection type E2000 is also available. All systems can communicate via two as well as one fiber with the help of the BIDI-technology with SC port.

Please inquire your requested type if it is not listed in the adjoining chart.

Application

Ordering Information

System

DL-485RS/	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.	0 100 06851	0 100 06852	0 100 06871	0 100 06873	0 100 06873-BIDI	0 100 06881	0 100 06883	0 100 06883-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		8dB		8dB	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.	1,2KBit/s, 2,4KBit/s, 4,8KBit/s, 9,6KBit/s und 19,2KBit/s
Operation Mode	half duplex
Termination	switchable: none or resistor network (Rw + Rpd + Rpu)
Max. Distance	1.200m Distances according to the manufacturer
Signal Delay	RS485 ◄► LWL : < 3 Tbit Tx ◄► Rx : 11 Tbit
Connector	9 pol. SUB-D female / 6 pol. screw terminal block

Power Supply

Status - LED's	Power Supply (green) / Data Receive (yellow) / Status (red)
Operation Voltege	24 VDC (10 VDC .. 30 VDC), other voltages on request
Current Consumption	250 mA
Potential Separation	500 VDC (24 VDC RS485)

Environmental

Operating Temperature	-10°C – +55° C
Storage Temperature	-40 – +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

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