

RS485 / FO Converter (1-Channel)

7XV5650

The RS485 / FO converter allows to connect up to 31 devices with a bus-enabled electric RS485 interface and provides an optical link up to a central unit or a star coupler. The converter is designed for the use in substations for the interference-free transmission of serial data (e.g. DIGSI- or IEC60870-protocol) with rates between 9.6 kbaud and 115 kbaud via fibre optic cables. This is the basis for building up cost effective optical data communication bus systems with line or star topology that meet the stringent requirements of substation control and protection systems.

Features:

- Topologies: Optical star, RS485 bus structure
- Protocol transparency *
rates between 9.6 kbaud and 115 kbaud
- Polarity selectable: Light ON / Light OFF in idle state
- Distance: 1,5 km with 62.5/125 μm fibre
- 120 Ω terminator for RS485 bus, deactivated by DIP switch
- Multivoltage power supply with self-monitoring function and fault output relay



Supply voltage:	DC 24 V to 250 V	$\pm 20 \%$ and
	AC 60 V to 230 V	$\pm 20 \%$ without switchover
Current consumption:	approx. 0.15 to 0.25 A	
LEDs:	2 LEDs	
	- green: Operating voltage o.k.	
	- yellow: Receiving data on FO channel	
Connectors:	Power supply:	2-pole Phoenix screw-type terminal
	FO:	820 nm BFOC ST-connector
	RS485:	9-pin Sub-D socket, 2-pole Phoenix screw-type terminal
	Fault signal output:	2-pole Phoenix screw-type terminal
Controls:	2 DIP switches for baud rate etc.	
Housing:	Plastic housing, EG90, charcoal grey; 90 x 75 105 mm (W x H x D) for snap mount on 35 mm DIN EN 50022 rail	

* The device cannot be operated with Profibus!

Applications

The converters can be used in an optical star structure (see fig. 1) or in an electrical RS485 bus structure (see fig. 2). Application according fig. 1 allows the interference free connection of relays with fibre optic cables, where inside the cabinet a cost effective RS485 bus is wired.

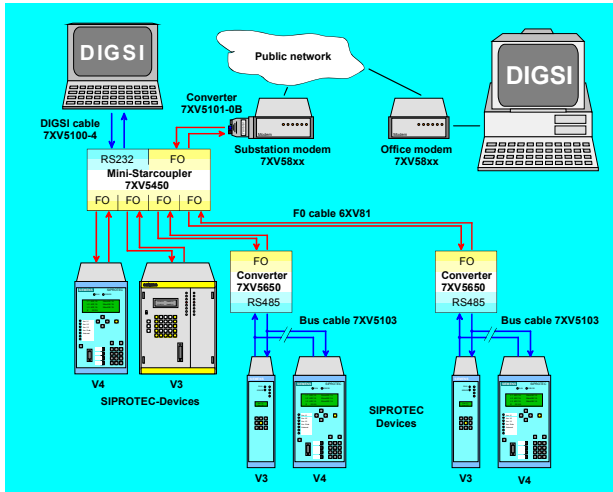


Fig. 1: Optical star structure with connected RS485 interfaces

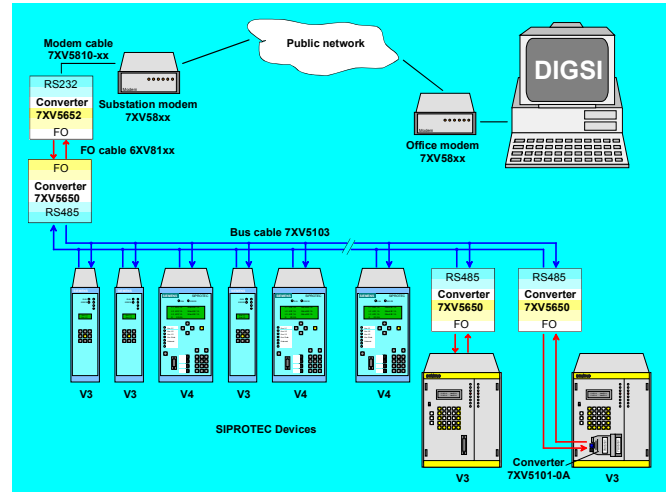


Fig. 2: Connection of optical interfaces to an RS485 bus

Selection and Ordering Data

<p>Product Name</p> <p>RS485 / FO Converter (1-Channel) Converter from FO to RS485 for transmission rates from 9.6 kBaud to 115 kBaud with plastic housing for snap mount on 35 mm rail Auxiliary voltage DC 24-250 V DC and AC 110-220 V AC with alarm contact. Connection of devices with RS485 interface by 9-pin SUB-D connector or screw terminals. Connection of PC, starcouplers, modem by 820 nm FOC with 62.5/125 µm or 50/125 µm optical fibre</p> <p>Optical Interfaces 820 nm with ST- connector</p>	<p>Order No.:</p> <p>7 X V 5 6 5 <input type="text"/> - 0 <input type="text"/> A 0 0</p> <p style="margin-left: 100px;">0</p> <p style="text-align: right; margin-right: 50px;">B</p>
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