

## Mini Starcoupler

## 7XV5450

The mini starcoupler multiplies an optical signal received at an input for up to four outputs. A signal received at an output is transmitted via the input interface to a central unit or to an upstream mini starcoupler or converter. As the mini starcoupler does not transmit selectively to individual outputs, the protocols used for data transmission must operate with unique DTE addresses (e.g. DIGSI or IEC 60870-5-103). Data are transmitted in transparent full-duplex mode. An RS232 interface is provided for diagnostics or for direct serial communication with DTEs. As long as this interface is in use, the optical interface to the central unit is blocked.

### Features:

- One optical input and up to 4 optical outputs.
- Distance spanned: 1.5 km with 62.5/125 µm multimode fibre.
- Multiple mini star couplers cascable
- RS232 interface for local access.
- Baud rate via FO up to 1.5 Mbaud  
Baud rate via RS232 up to 115 kbaud
- Protocol transparency
- Polarity selectable: Light ON / Light OFF in idle state
- Wide range power supply with self-monitoring function and alarm contact



<b>Supply voltage:</b>	DC 24 V to 250 V ± 20 % and AC 60 V to 230 V ± 20 % without switchover
<b>Current consumption:</b>	approx. 0.25 to 0.4 A
<b>LEDs:</b>	3 LEDs <ul style="list-style-type: none"> <li>- green: Operating voltage o.k.</li> <li>- yellow: Receiving data</li> <li>- yellow: Sending data</li> </ul>
<b>Connectors:</b>	Power supply: 2-pole Phoenix screw-type terminal FO cables: 820 nm ST-connectors  RS232: 9-pin Sub-D socket Fault signal output: 2-pole Phoenix screw-type terminal
<b>Controls:</b>	1 DIP switch for setting of polarity etc.
<b>Housing:</b>	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

## Applications

The mini starcoupler allows the central access or the remote interrogation to SIPROTEC relays with DIGSI via optical interfaces. The component is cascadable, so star topologies (see fig. 1) or ring topologies can be configured. Using a ring structure allows the use of all four outputs (see fig. 2). The mini starcoupler has a local RS232 port socket. Connecting to this port with a PC and using the cable 7XV5100-4 disconnects the optical input to avoid data collision due to local and remote access at the same time.

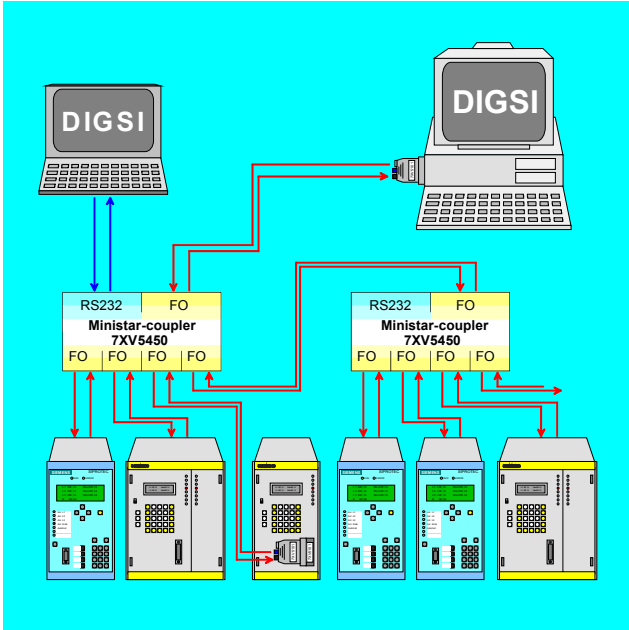


Fig. 1: Star topology with mini starcouplers

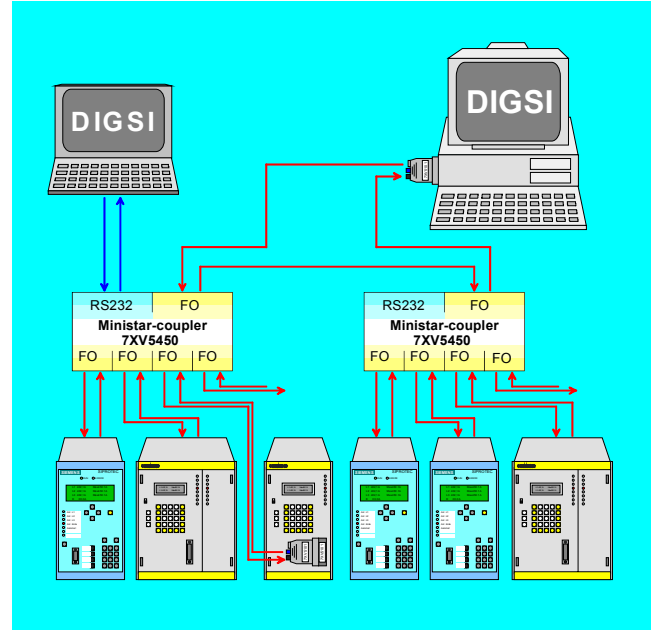


Fig. 2: Ring structure with mini starcouplers

## Selection and Ordering Data

Product Name

### Mini Starcoupler

Optical mini starcoupler 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 relay.  
 Connection of up to 4 protection devices by 850 nm FOC for 62.5/125 µm optical fibre max. distance 1.5 km  
 Connection of PC, starcouplers, modem by 850 nm FOC for 62.5/125 µm optical fibre max. distance 1.5 km  
 or by 9-pin RS232 connector  
 Cascadable

with ST-connectors

Order No.:

7 X V 5 4 5  - 0  A 0 0

B

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 SIPROTEC