

## Two-channel binary transducer

7XV5653

The transducer registers binary information from contacts at two binary inputs and forwards it via fibre-optics cable, interference free to the other transducer, which outputs the signals via its contacts. The two contacts can be used as trip contacts. The transducer provides independent and bidirectional two binary inputs and two contact outputs.

The transducer is designed for the use inside substation environment. High security, telegram based serial data transmissions are used between the transducers. Transmission errors and a failure of the data link are signaled via an alarm contact, so a permanent supervision of power supply and the data link is included in the transducer.

### Features:

- 2 isolated binary inputs 24V DC to 250V DC
- 2 isolated trip contacts
- Fast remote trip (12 ms) with a serial point-to-point link of up to 115kBaud.
- Telegram based interference free transmission via fibre-optic cable
- Permanent datalink supervision and indication
- Distance of approx. 3 km via multimode fibre-optic cable 62,5/125µm
- Distance with Repeater 7XV5461-0Bx00 up to 170 km via duplex monomode FO cable up to 8 km via duplex multimode FO cable up to 40 km via single monomode FO cable
- Wide-range power supply with self-monitoring function and alarm relay



<b>Supply voltage:</b>	DC 24V to 250 V AC 60V to 230 V	±20% and ±20% without switchover
<b>Current Consumption:</b>		approx. 0.15 to 0.25 A
<b>LEDs:</b>	6 LEDs : 1x green 2x yellow 2x yellow 1x red	Operating voltage o.k. Binary input 1/2 active Command relay 1/2 active Alarm
<b>Connectors:</b>	Power supply: FO: Binary inputs: Fault signal output:	2-pole Phoenix screw-type terminal 820nm ST- connector 4-pole Phoenix screw-terminal 2-pole Phoenix screw-terminal
<b>Controls:</b>	1 DIP switch:	contact unit operating voltage, baud rate, etc.
<b>Housing:</b>	Plastic housing, EG90, charcoal grey, 45x75x105 mm (WxHxD) for snap mount on 35 mm DIN EN50022 rail	

## Applications

The bidirectional transducer registers binary information at two binary inputs and forwards it via fibre-optic cable to a second transducer, which outputs the signals via contacts. Distances of about 3 km can be realized directly via multimode fibre-optic cables. The repeater 7XV5461 is available for distances up to 170 km via monomode fibre-optic cable (Fig. 1).

Because of serial transmission the data, connection can also be made by standby modem or a digital network via the asynchronous RS232 interface (Fig. 2).

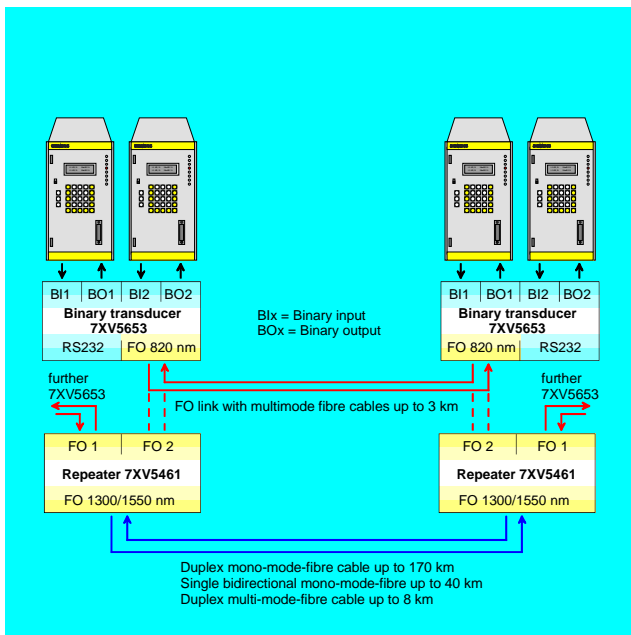


Fig. 1: Optical transmission via FO-Cable

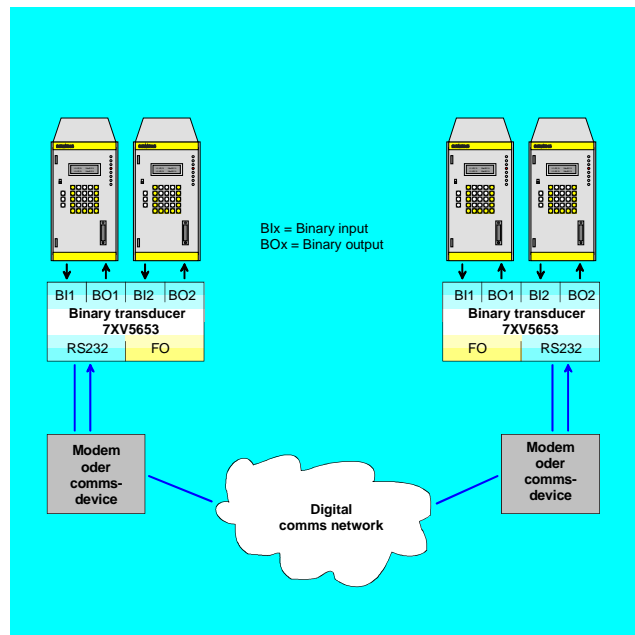


Fig. 2: Transmission via digital network

### Selection and ordering data

Item	Order No.:
<b>Two-channel binary signal transducer</b> <b>Binary signal transducer</b> Plastic housing, for snap mount on 35 mm DIN EN 50022 rail Auxiliary voltage supply DC 24 to 250V and AC110 to 220V with alarm relay 2 binary inputs, 2 trips, 1 alarm relay with potential free contacts Connector to a second transducer with 820nm, via fibre-optic cable 62,5/125 µm Connection to a second transducer via a communication system with a RS232 interface, 9-pole. SUB-D socket	7 X V 5 6 5 3 - 0 <input type="checkbox"/> A 0 0
<b>Optical Interface</b> 820nm with ST-Connector	B

Responsible for technical content:  
 Stephan Meyer, Klaus-D. Müller  
 E D EA PRO LM2,  
 Siemens AG, Nürnberg  
 Internet: [www.SIPROTEC.com](http://www.SIPROTEC.com)

Bereich: Energy  
 Geschäftsgebiet: Energy Automation  
 Postfach 48 06  
 D-90026 Nürnberg

