

RS232 fibre optic connectors and elbow plugs 7XV5101

Application

An optical connection of protection devices with an electrical (non-isolated) RS232 interface, e. g. to a starcoupler, for centralized control is made possible with the fibre optic RS232 connector modules. Thus, further devices such as PC or notebook, modem or serial data switch can be effectively protected against electromagnetic interferences. An appropriate connector module is available for each of the above-mentioned applications.

These fibre optic RS232 connector mod-



Fig. 1: 7XV5101-1A



Fig. 2: 7XV5101-1B

ules are housed in SUB-D receptacle and can be directly plugged into the respective interfaces of the pertaining devices. No further settings are required. In its normal position the optical interface is set to steady light OFF. Data transmission is fully duplex and transparent. The optical interfaces have an operational wavelength of 850 nm and have FSMA plug connectors. Distances of up to 1500 m can be reached with the 62,5 µm fibre-optic cables. The various designs differ from each other in the number of pins (9 or 25 poles), in the design of the plug (male or

female) and in their mode of auxiliary voltage supply (pin 9 or plug-in PSU).



Fig. 3: 7XV5101-3C

Further information on application and design can be obtained from the selection and ordering data.

7XV5101-0A - available for 25-pin protection device

The RS232 fibre optic connector 7XV5101-0A is normally connected to the 25-pin interface of the digital protection device. Data is transmitted transparent, i. e. independent of any protocol. The con-

trol wires are jumpered and are not supported.

The connector module is supplied from the interface (pin 9) of the protection relay via female connector, therefore an additional power supply is not necessary. The connector settings DCE/DTE can be set after the chassis has been opened. Manu-

facturer's setting is 'positive logic' (steady light OFF).

The right-angle plug 7XV5101-8x is available to place the RS232 fibre optic connector underneath the front cover.

7XV5101-0B - available for 25-pin modem

The RS232 fibre optic connector 7XV5101-0B is normally connected to the 25-pin interface of the modem. Data is transmitted transparent, i. e. independent of any protocol. The control wires are jumpered and are not supported.

The connector module is supplied from an external plug-in PSU via female connector (included in the scope of supply). The connector settings DCE/DTE can be set after the chassis has been opened. Manufacturer's setting is 'positive logic' (steady light OFF). The right-angle plug 7XV5101-8x is available to place the RS232 fibre optic connector underneath the front cover.

A standard 'mouse adaptor' (9-pin male / 25-pin female connector) has to be installed between modem and connector module, when a modem with 9-pin is used.

7XV5101-1A - available for data switch I/O interface

The RS232 fibre optic connector 7XV5101-1A is directly connected to the rear 25-pin interface of the serial data switch 7XV55. Data is transmitted trans-

parent, i. e. independent of any protocol. The control wires are jumpered and are not supported.

The connector module is supplied from the I/O interface (pin 9), therefore an additional power supply is not necessary. The connector settings DCE/DTE can be

set after the chassis has been opened. Manufacturer's setting is 'positive logic' (steady light OFF).

7XV5101-1B - available for 25-pin PC

The RS232 fibre optic connector 7XV5101-1B is directly connected to the 25-pin interface of the PC. Data is transmitted transparent, i. e. independent of any

protocol. The control wires are jumpered and are not supported.

The connector module is supplied from an external plug-in PSU via female connector (included in the scope of supply). The connector settings DCE/DTE can be set after the chassis has been opened. Manu-

facturer's setting is 'positive logic' (steady light OFF).

A standard 'mouse adaptor' (9-pin male / 25-pin female connector) has to be installed between modem and connector modul, when a modem with 9-pin is used.

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7XV5101-3A - connector

between data switch and relay

The fibre optic connector 7XV5101-3A can directly be connected to one of the 32 rear interfaces (9-pin) of the serial data

switch. Data is transmitted transparent, i.e. independent of any protocol. The control wires are jumpered and are not supported.

The connector module is supplied from the interface (pin 9) itself, therefore an additional power supply is not necessary.

Manufacturer's setting is 'positive logic' (steady light OFF).

7XV5101-3C - available

for 9-pin notebook

The RS232 fibre optic connector 7XV5101-3C is directly connected to the 9-pin serial interface of the notebook.

Data is transmitted transparent, i.e. independent of any protocol. The control wires are jumpered and are not supported.

The connector module is supplied from the notebook via cable of the DIN keyboard interface. Manufacturer's setting is 'positive logic' (steady light OFF).

Designs and Pin Configurations

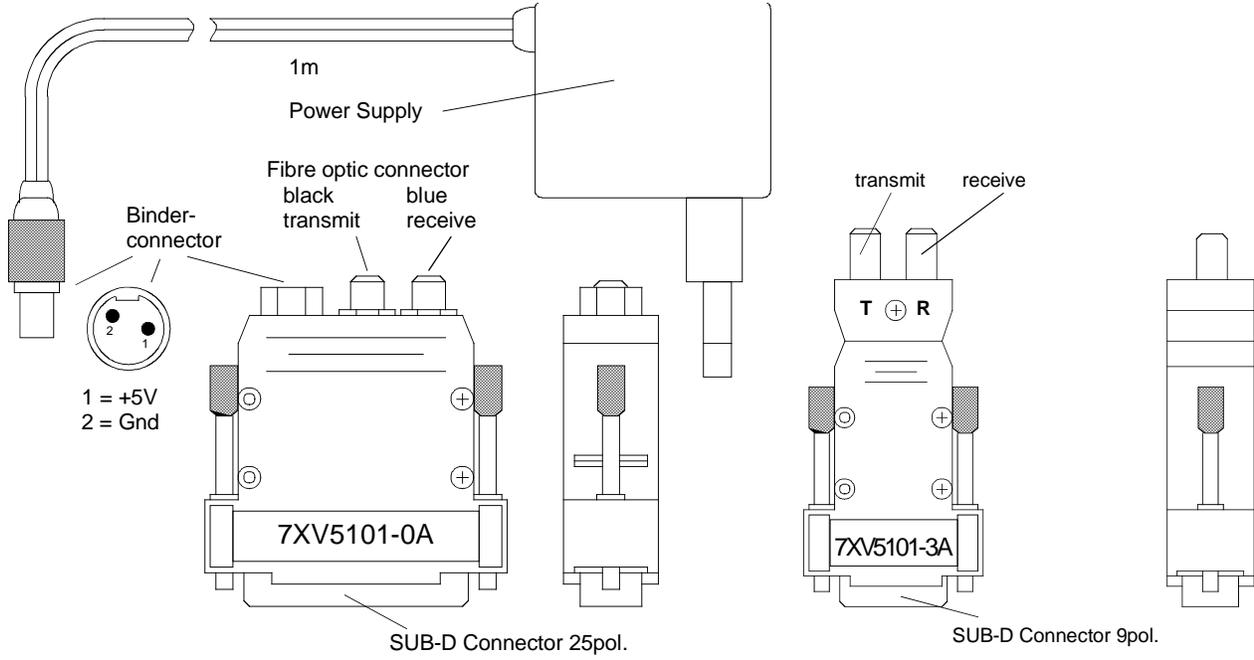
		7XV5101-	0A	0B	1A	1B	3A	3C
Housing:	Plastics , metal-plated		X	X	X	X	X	X
	Dimensions 58 x 53 x 17		X	X	X	X		
	Dimensions 72 x 32 x 17						X	X
Power supply	+5V via pin 9		X	1)	X	1)	X	
	+5V via female connector		X	X	X	X		
	Plug-in PSU 220V / 50Hz (included in delivery)			X		X		
	via external keyboard connector of the notebook							X
Electrical interfaces	V.24 / RS232 DCE (steady light OFF)		X	X				
	V.24 / RS232 DTE (steady light OFF)				X	X	X	
	DTE / DCE switchable		X	X	X	X		
	Assignment 2 TxD, 3 RxD, 5 GND						X	
	Assignment 3 TxD, 2 RxD, 5 GND							
	Assignment 2 TxD, 3 RxD, 7 GND				X	X		
	Assignment 2 RxD, 3 TxD, 7 GND		X	X				
	Assignment 9 +5V		X	X	X	X	X	
	Bridge contact 4-5, 6-8-20 25-pin		X	X	X	X		
	Bridge contact 7-8, 1-4-6 9-pin						X	X
Optical interfaces	Plug-in connection FSMA black = transmit, blue = receive		X	X	X	X		
	Plug-in connection FSMA T = transmit, R = receive						X	X
	Optical Power 27µW (-15,7dBm)*		X	X	X	X	X	X
	Sensitivity 1µW (-30dBm)*		X	X	X	X	X	X
	Optical Budget 7dB (+3dB backup)*		X	X	X	X	X	X
	Wavelength 850nm		X	X	X	X	X	X
	Transmission Distance 1500m (62,5µm glass fibre used) 800m (50µm glass fibre used)		X	X	X	X	X	X

* Valid for 62,5µm glass fibre cable

1) Only for 7XV5101-xB (not for 7XV5101-xB /B)

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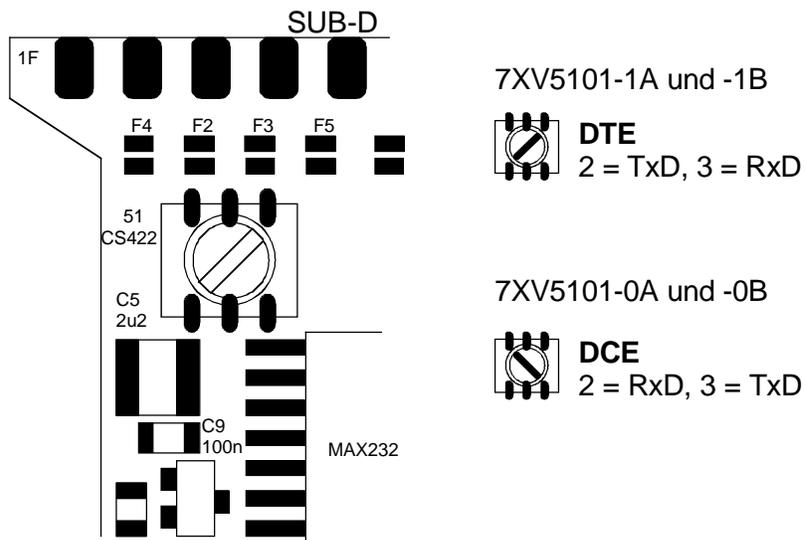
Designs and Pin Configurations



7XV5101-0x and -1x

7XV5101-3x

Switch setting DTE / DCE of 7XV5101-0x and -1x



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Selection and ordering data

Item	Order No.:
RS232 fibre optic connectors	7XV510 1 -
for protection device 25-pin male connector $V_{aux} +5V$ (Pin 9)	0 A
for modem 25-pin male connector V_{aux} Plug-in PSU 220V AC	0 B
for data switch I/O 25-pin female connector $V_{aux} +5V$ (Pin 9)	1 A no longer available
for PC 25-pin female connector V_{aux} Plug-in PSU 220V AC	1 B
for data switch to relay 9-pin (female) $V_{aux} +5V$ (Pin 9)	3 A no longer available
for notebook 9-pin female connector $V_{aux} +5V$ via DIN connector	3 C

Elbow plugs

Elbow plug 25-pin Sub-D angled to long edge of the protection front connector
Elbow plug 25-pin Sub-D angled to short edge of the protection front connector

Order No.:
7XV510 1 -
8 A
8 B

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Dimensions

All dimensions in this catalog are given in mm

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