3One data

Model277

RS-232/485/422 to Fiber Converter

(SS：single mode single fiber)

Introduction:

Model277 is one kind can offer RS-232/485/422 serial port carry transparent optic fiber modem of transmission to get end to user, no need patch cords set up, switch over automatically, and can detect and examine the signal speed automatically, zero delays time to transmit automatically. Model277 adopt optic fiber transmit, have isolate protection, data privacy is fine, working steady, data, such threats to communication equipment as the wave is welled up and interfered with electromagnetically that the effective one has prevented the abominable environment from being struck by lightning, can work in the abominable and dangerous environment reliably.

Can be used in occasions such as various industrial control, course controlling, traffic controlling and intellectual district , especially suit the bank, electricity and interfering with environment department and system with the special requirement electromagnetically.

Packing List:

Model277 is shipped with following items.

1. Model277 × 1
2. User manual × 1

Features:

1. Extend RS232/485/422 transmission
2. Transmit asynchronously, point-to-point to use, speed reach 500Kbps
3. 600W surge protection, 1500W surge protection
4. Examine signal speed automatically, zero delay time
5. Plug-and-Play (Device is hot-pluggable, Data format Auto-sensing & Self-adjusting)

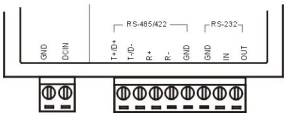
6.Only one RS232/RS485/RS422 port can be connected at a given time.

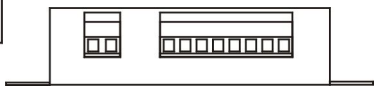
7. 9~36VDC power supply Input(2 bit terminal block)

Pinout Configuration:

Power, RS-232/485/422

RS-232/485/422 interface adopt 8 bit terminal block, the power supply input is 2 bit terminal block.





Power:

DCIN 9~36VDC input

GND power ground

RS-485/422:

T+/D+ RS-422 send+/485+(A)

T-/D- RS-422 send-/485-(B)

R+ RS-422 receive+

R- RS-422 receive-

GND Signal ground

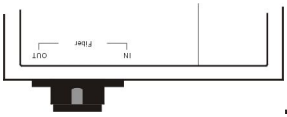
RS-232:

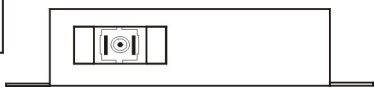
GND Signal ground

IN RS232 input (RXD)

OUT RS232 output (TXD)

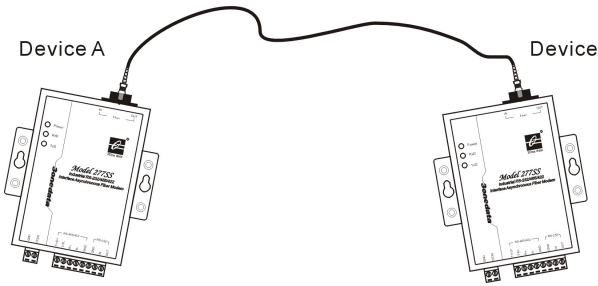
Optical fiber interface





The optical fiber connection supports single-mode single fiber

For Link : A-to-B(The mark A device link to the mark B device)



LED indications:

Power	Green, Power supply indication On: power joined; Off: no power connect
RxD	Green light, optic fiber interface receive data point out and concurrently mere port report an emergency and ask for help or increased vigilance, on: There are data that are received; Off: Have data receive
TxD	Green light, optic fiber interface send datum instruct On: Have data send; Off: no data send

Specifications:

Standards: EIA RS-232C, RS-485, RS422 standard

Transfer rate: 300~500Kbps, auto test serial signal rate detect signal speed automatically, zero delay time,

Transfer distance: RS-485/422 side: 1.2Km(9600bps)

RS-232 side: no less than 5m

Fiber optic:20,25,40,60,80,100,120km(SM), optional

Max number of drops:RS385/422: 128drops

Fiber connector: 1 × SC, 1 × FC optional

Wavelength: 1310T/1550R (Device A) 1310R/1550T(Device B)

Fiber optic cables:Single Mode:8.3/125,8.7/125,9/125 or 10/125 um

600W surge protection;1500W static protection

Power input: +9V~36VDC power supply input(2 bit terminal block)

Dimensions: 100.0mm × 69mm × 22.0mm

Operating temp: -25°C to70°C

Storage temperature: -40 to 85°C

Operating humidity: 5% to 95%(no condensation)

Warranty: 5 years

Approvals: FCC,CE,RoHS approvals

Applications:

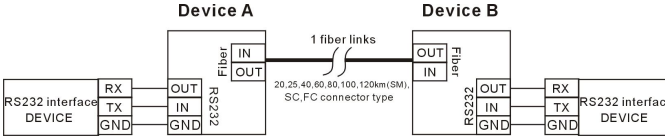


Figure 1: Extending the RS232 data distance

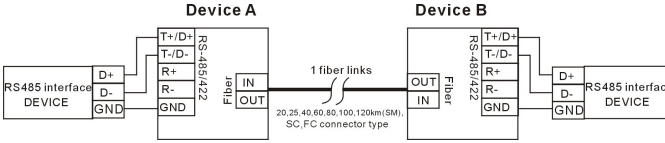


Figure 2: Extending the RS485 data distance

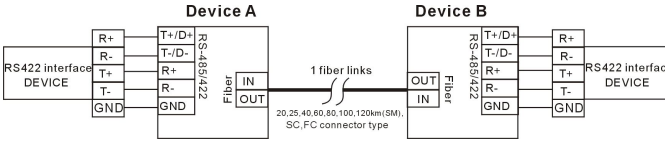
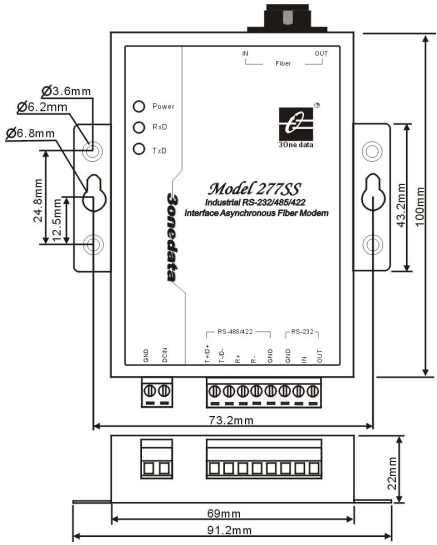


Figure 3: Extending the RS422 data distance

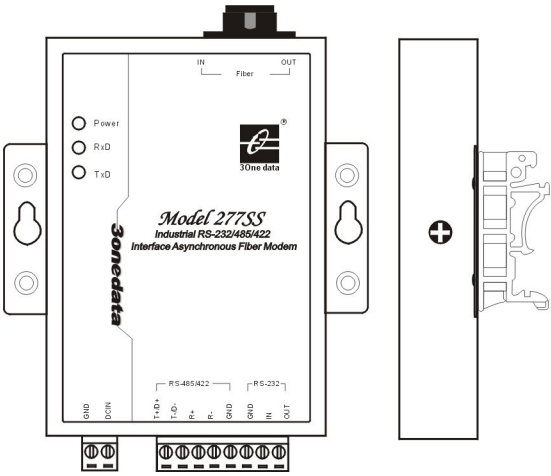
Installation:

Model277 provides DIN-rail and wall mounting two types of installation.

Wall mounting installation



DIN-Rail Installation



Troubleshooting instructions:

Check the connections according to the connection diagrams. Make sure the power LED is ON and the RX & TX LEDS are OFF when there is no data communications. Perform a loop back test on two Model277 converters. Attach the two Model277 converters by

attaching the device A to the device B using a SS Fiber Optic Cable. Connect the Model277 RS-232 port or RS-485 port or RS-422 port to a PC. Send ASCII Characters from a hyper terminal program from one converter to the other. This will test both the transmit and receive functions.

Model277 FAQ:

LED indicator OFF

1. Power supply insert incorrect
2. Choice incorrect power supply(9~36VDC)

LED indicator instruction

1. PWR ON: Product work normally
2. TXD indicator flash: optic port transfer data
3. RXD indicator flash: optic port receive data
4. RXD ON: optic connection incorrect（electric port in connection, used to optic port alarm indicator）

Communication failure

1. Using incorrect power supply
2. Optic port or electric port connection incorrect.
3. Optic fiber port do not inosculate to the equipment interface
4. The equipment come from different supplier
5. Device A connect to device A or device B connect to device B
6. The optic fiber connector is incorrect, high error code, attenuation large.

Certifications:

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