

MODEL485P

RS-232 to RS-485/422 Converter

User manual

Shenzhen 3onedata Technology Co., Ltd

Tel: +86-755-26702668 Fax: +86-755-26703485

www.3onedata.com

【Introduction】

Model485P is a high performance, more function RS-232/485/422 interface converter. The product configure out connect power, optic-electrical isolation more than 2.5KV. Have small volume, far transmission distance, high rate, steadily performance and so on. It is abroad used in industry control system, It is an interface convert product that have good between performance to price. Adopt itself adapt interface technique, no use for setup switch.

【Packing list】

Please check the packaging and accessories by your first using.

1. Model485P × 1
2. 9VDC power adapter × 1
3. Separate terminal block(DB9F to 5 bit, optional) × 1
4. User manual × 1
5. Certificate of quality × 1
6. Warranty card × 1

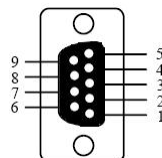
Please inform us or our distributor if your equipments have been damaged or lost any accessories, we will try our best to satisfy you.

【Feature】

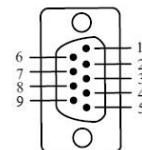
1. 9VDC power input, 2500V optical isolation
2. Plug-and-Play (hot-pluggable, data format auto-sensing & self-adjusting)
3. Data direction auto-turnaround, no flow control is necessary
4. 1500W surge protection, 15KV ESD protection
5. 1800m transfer distance (115200bps)
6. RS-485/RS-422 connector RJ45, DB9M or 5 bit terminal block

【Pinout Configuration】

RS-485 port adopt DB9M (DB9F to 3 bit terminal block), RS-232 port adopt DB9F (Female), 9VDC power supply Input.



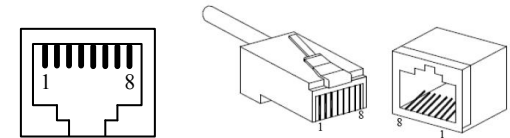
DB9F (Female/hole)



DB9M (Male)

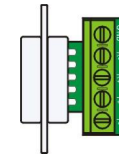
RS-232 (DB9F)	2	TXD
	3	RXD
	5	GND
RS-485/422 (DB9M)	1	T-/D-
	2	T+/D+
	3	R+
	4	R-
	5	GND

RJ45 (Female) for RS-485/422:



PIN#	1	2	3	6	7,8
RS485	D+	D-			GND
RS422	T+	T-	R+	R-	GND

DB9F to 5 bit terminal block:

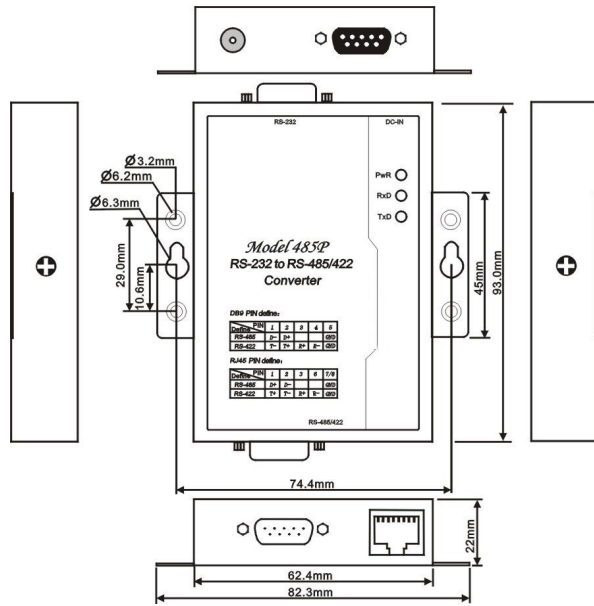


- T+/485+ RS-422 send+/485+
- T-/485- RS-422 send-/485-
- GND Signal ground
- R+ RS-422 receive+
- R- RS-422 receive-

【LED Indicator】

Power	Red, Power supply indication On: power joined; Off: no power connect
RxD	Green light, RS-485/422 interface receive data point out On: There are data that are received; Off: no data receive
TxD	Yellow light, RS-485/422 interface send data um instruct, On: data setting; Off: no data setting

【Dimension】



【Specification】

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

RS-232 signal: TX, RX, GND

RS-422 signal: T+, T-, R+, R-, GND

RS-485 signal: D+, D-, GND

Working mode: Asynchronism, point to point or multi point, 2 wire half-duplex, 4 wire full duplex

Baud rate: 300~115200bps, auto test serial signal rate detect signal speed automatically, zero delay time

Flow control: Data direction auto-turnaround, no flow control is required

Transfer distance: RS-485/422 side: 1.8Km, 115200bps

RS-232 side: no less than 5m

Max number of drops: 128 nodes

Optical isolation: 2500V

Port protect: 600W surge protection, 15KV ESD protection

Power

Power input: 9VDC power input

Consumption: Static less than 120mA, dynamic less than 350mA

Environment

Operating temperature: -20°C to 60°C

Storage temperature: -25°C to 85°C

Humidity: 5% to 95%(no condensation)

Appearance

Dimensions: 93.0mm×62.4mm×22.0mm

Material: Iron (shell)

Color: White

Weight: 200g

Warranty: 3 years

Approvals: FCC, CE, RoHS approvals

【Applications】

1. RS232 to RS485 mode option(DB9):

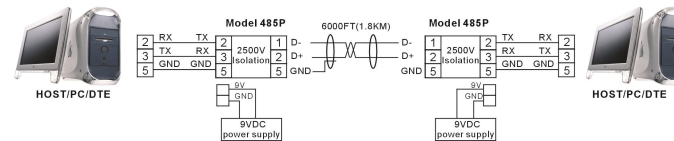


Figure 1: Extending the RS232 data distance in RS485 mode

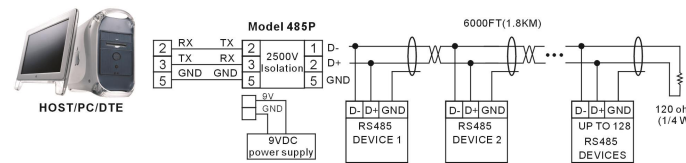


Figure 2: Master/Slave multi-drop configuration in RS485 mode

2. RS232 to RS422 mode option(DB9):

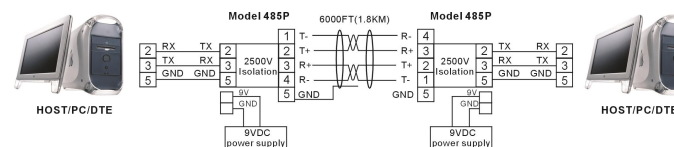


Figure 3: Extending the RS232 data distance in RS422 mode

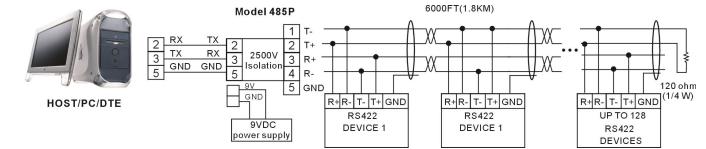


Figure 4: Master/Slave multi-drop configuration in RS422 mode

Point to point communication, industrial gathering and disperse distribution system, all kinds of remote control and measurement system, POS, banking, insurance, stocking, canteen meal selling system, transport billing system, all kinds of PLC, digital power meter, gas meter.

【Troubleshooting instructions】

1. RS232 to RS485 mode option:

Perform a loop back test on a pair of Model485P converters. Using figure 1, attach the two Model 485Ps to two serial ports on a PC and using two instances of a HyperTerminal program send a character from one and see if it echoes to the other. This will test both transmit and receive functions of the converter in RS485 mode.

2. RS232 to RS422 mode option:

Perform a loop back test on one Model485P converter. Tie signals T+ to R+ and T- to R- of the Model485P. Attach the converter to the serial port on a PC and using HyperTerminal send a character from one and see if it echoes to the other. This will test both transmit and receive functions of the converter in RS422 mode.

Certifications:

