

Passive RS232 RS485 Converters

C14 Passive RS232 RS485 Converters documentation

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Data Sheet

Passive RS232 RS485 Converters (C14)

C14



Features

- Interface feature: RS232C/RS485 standard interface compatible with EIA TIA
- Electric interface: RS232 end DB9 hole connector RS485 end terminal with connection pole
- Passive, anti-static
- Economical type
- Working mode: asynchronous half-duplex differential transmission
- Transmission media: twisted - pair
- Transmission rate: 300-115.2 kbps
- External discharge dimension: 56.3 mm x 33.5 mm x 15.8 mm
- Working circumstances: -25°C to 70°C
- Relative humidity: 5% to 95%
- Transmission distance: 1,200 m (RS485 end); 5 m (RS232 end)
- 2 years warranty
- Customization of OEM is welcomed

Introduction

In remote data communication between a computer and peripheral equipment, it is often required to make an interconversion between standard serial interfaces. Compatible with RS232C / RS485 standards, the Passive Serial Converter can convert mono-end RS232 signal to differential RS485 signal and extend the communication distance up to 1.2 km.

No external power is needed as it adopts a RS232 charge pump to drive the system and gain electricity without initializing the RS232 serial interface. An internal zero delay auto transceiver and particular I/O circuits automatically control the data stream direction without any handshake signal (for example RTS, DTR, etc.). Thereby it guarantees to function under RS485 standard without changing the program compiled under RS232 half-duplex mode and assures the adaptation to a current operation software and interface hardware.

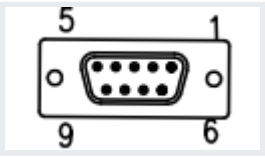
It implements multi-machine response communication and is commonly used in industrial automation control systems, all-one-card, access control systems, consumption systems, time and attendance systems, parking systems, self-service banking systems, bus charging systems, highway toll station systems and many more.

Specifications

Redisage PN		C14
Converter ports		1 x RS232 & 1 x RS485
Power	Voltage	passive
	Power	< 1 W
Frame ground protection		yes
Serial interface	RS232	TxD, RxD, GND
	RS485	A, B
Baud rate		up to 115200 bps
LED indicators		N/A
RS485 termination		N/A
Connector	RS232	DB9 male connector
	RS485	3-pin terminal block max. 2.5 mm ² wire
	Power	N/A
Transmission distance	RS485	max. 1,200 m at 9.6 kbps; max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)
	RS232	max. 15 m at 115.2 kbps
Mounting and enclosure		compact

Redisage PN	C14
Temperatures	-40°C to +75°C operating and storage
Humidity	10 - 90% RH, non-condensing
ESD protection	±4 kV contact discharge / ±8 kV air discharge
Certification	CE, RoHS

Connector and signal



RS232C pin distribution

DB9 Female (PIN)	RS-232C Interface Signal
1	Protective
2	RXD SIN
3	TXD SOUT
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

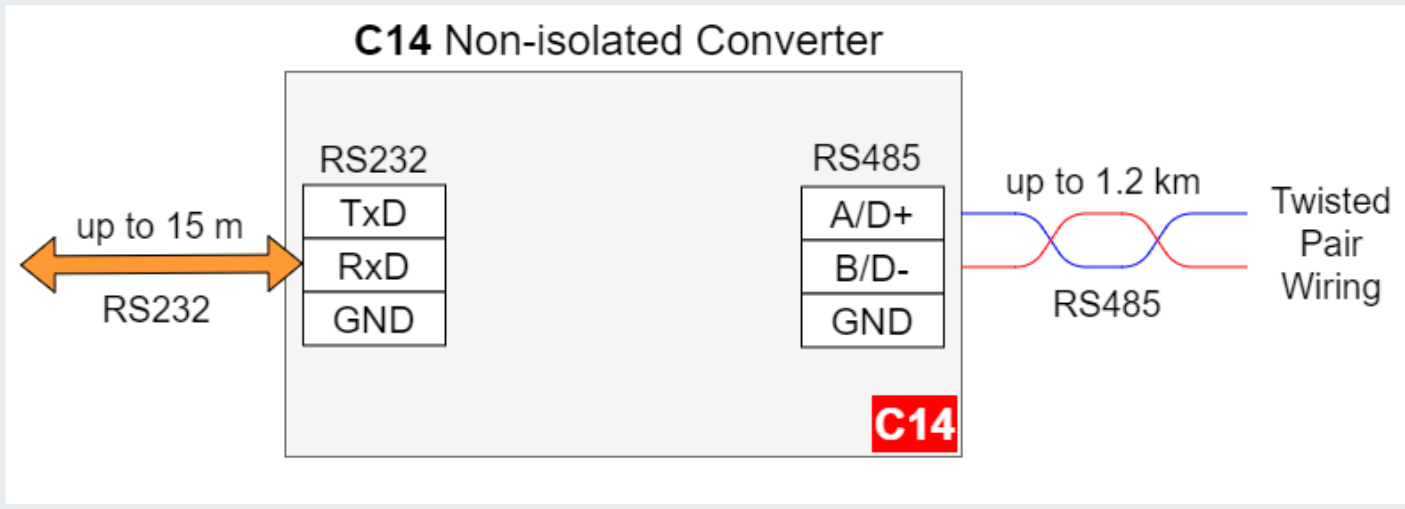
RS485 data output & connector and pin distribution

DB9 Male (PIN)	Data Output	RS-485 Half Duplex
1	T/R+	RS485 (A+)
2	T/R-	RS485 (B-)

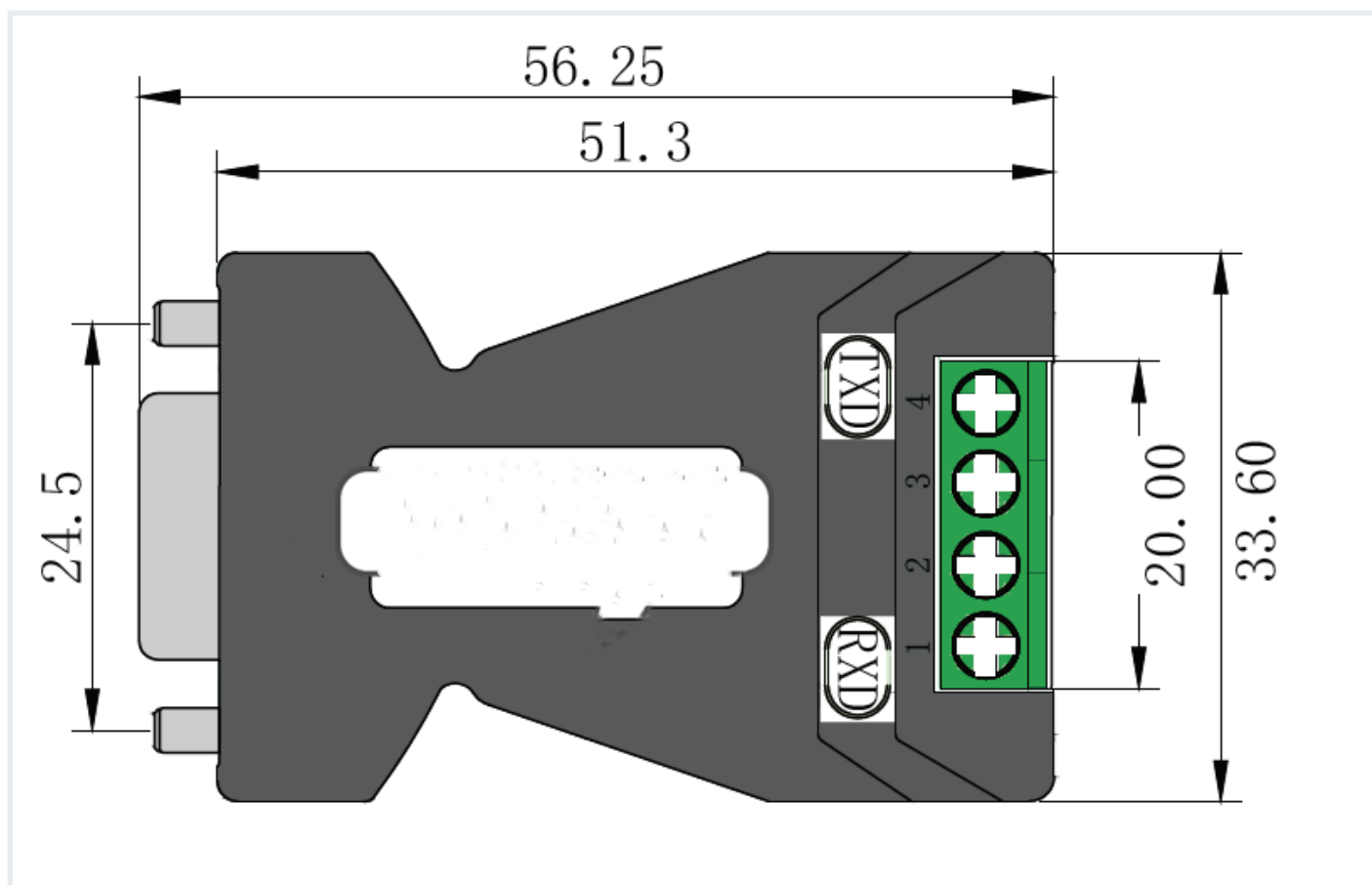
DB9 Male (PIN)	Data Output	RS-485 Half Duplex
3	GND	Ground wire
4	VCC	9 VDC

Applications

C14 - Non-isolated (Passive)



Product dimensions



Troubleshooting

Data communication failure

- Check if the RS232 interface connection is correct.
- Check if the RS232 output connection is correct.
- Check if the connection ends are well-connected.

Data loss or mistake

- Check if the data rate and format are consistent on both communication ends.

Additional notes

Related information and links		
Ordering information	Accessories	Similar products

Products family sample photo



<https://redisage.com>

DISCLAIMER NOTES

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

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