

RS232 to RS485 / RS422
Industrial Isolated Converter
Part no. USC-WDB9232F



This is an industrial grade fully isolated RS232 to RS485 / RS422 converter which can convert RS232 signals to balanced differential RS485 and RS422 signals in both directions.

Built-in power isolation makes sure the supply voltage is properly isolated from the signal voltage. The supply voltage is completely isolated from the isolated terminals. This RS232 to RS485 converter also has built-in isolation for the signal lines providing error-free and clean data communication while avoiding electrical interference, surges and voltages spikes damaging the data signal and connected equipment. The isolation also helps in preventing ground loops. Onboard TVS (Transient Voltage Suppressor) and ESD protection, effectively protects against surge voltages and transient peak voltages in the circuitry and provides protection against static electricity. An onboard self-recovery fuse and protection diodes, ensures a stable voltage output, and protects against over-current and over voltages.

Overall features

- Industrial grade strength
- Isolated power and signal lines
- Onboard TVS (Transient Voltage Suppressors)
- Built-in self-recovery fuse and protection diodes
- Fail-safe bias resistors
- Screw terminals for easy connection
- Automatic Send Data Control
- Control LEDs for TX, RX and power
- Compatible with Modbus RTU/ASCII, BACnet
- Onboard 120 ohm terminal resistor
- Wide voltage range of 5 – 36VDC

To access technical support, please visit the U.S. Converters website at:
www.USconverters.com
Here you will find:

- Latest drivers and updates for download
- Technical tips
- Documentation
- Configuration support
- and much more...

Feel free to contact our technical support team at mail@usconverters.com with any issues.

Copyrights © U.S. Converters

SPECIFICATIONS	
Model number	USC-WDB9232F
Indication LED lights	Power, TX, RX
Baud rate	300 - 115200bps
Power	External 5-36VDC
Current	< 350mA
RS232 Interface	DB9 female connector. Pin 7 (RTS) and 8 (CTS) are tied together. Pin 4 (DTR), 6 (DSR), and 1 (CD) are tied together.
RS485/422 interface	Screw terminal
Isolation	2.5KVrms/600VDC isolation, dedicated DC/DC module, 600W +/-15KV ESD protection
Standards	EIA/TIA RS-232/485/422
Installation	35mm standard DIN rail / screws
Handshake / flow control	Automatic Send Data Control
Certifications	CE, FCC, RoHS ISO 9001 Certified
Operating Temp.	-13°F to 158°F (-25°C to 70°C)
Operating humidity	5% To 95% - No Condensation
Dimensions	81 × 54 × 32 mm
Warranty	1-year limited warranty
ECCN	4A994.a
Schedule B	8471.80.1000
HTS	8517.18.0050



Terminals and lights

RS232 Male Pinout

RS232 Female Pinout

RS232 Pinout		
DB9 (PIN)	RS232 Male	RS232 Female
2	Receiving data (RXD)	Sending data (TXD)
3	Sending data (TXD)	Receiving data (RXD)
5	GND	GND
1, 4, 6, 7, 8, 9	N/C	N/C

RS232 TO RS485/422 Isolated Converter

5V-36V 485 422

LED Indicators	
PWR	Light up red when power supply is connected
TXD	Blinking green when RS232 port sends data
RXD	Blinking Blue when RS232 port receives data.

RS485/422 Pin Definition						
Interface	V+	V-	RB	RA	TB	TA
RS485	5V-36V Power supply positive	Power supply negative / GND	N/C	N/C	Differential signal negative B-	Differential signal positive A+
RS422	5V-36V Power supply positive	Power supply negative / GND	Receive differential signal negative R-	Receive differential signal positive R+	Send differential signal negative T-	Send differential signal positive T+

Dimensions



Unit:mm