

# TCC-100/100I Series

Industrial RS-232 to RS-422/485 converters with optional 2 kV isolation



- > RS-232 to RS-422 conversion with RTS/CTS support
- > RS-232 to 2-wire or 4-wire RS-485 conversion
- > 2 kV isolation protection (TCC-100I)
- > Wall- and DIN-rail mounting
- > Plug-in terminal block for easy RS-422/485 wiring
- > LED indicators for power, Tx, Rx
- > Wide temperature range model available (-40 to 85°C)



## Introduction

The TCC-100/100I series RS-232 to RS-422/485 converters increase networking capability by extending the RS-232 transmission distance. Both converters have a superior industrial-grade design that includes

DIN-rail mounting, terminal block wiring, an external terminal block for power, and optical isolation (TCC-100I and TCC-100I-T only). The TCC-100/100I series converters are ideal solutions for converting RS-232 signals to RS-422/485 in critical industrial environments.

## Specifications

### RS-232 Side

**Connector:** DB9 female  
**Signals:** TxD, RxD, RTS, CTS, GND

### RS-422/485 Side

**Connector:** Terminal Block  
**Signals:**  
 (interface selected by DIP switch)  
 RS-422: TxD+, TxD-, RxD+, RxD-, RTS, CTS, GND  
 RS-485-4w: TxD+, TxD-, RxD+, RxD-, GND  
 RS-485-2w: Data+, Data-, GND

**RS-485 Data Direction Control:** ADDC® (Automatic Data Direction Control)

### Serial Communication

**Baudrate:** 50 bps to 921.6 kbps  
**Optical Isolation:** 2 kV (TCC-100I/100I-T)

### Physical Characteristics

**Housing:** Metal  
**Dimensions:** 67 x 100.4 x 22 mm (2.64 x 3.93 x 0.87 in)  
**Weight:** 148 g (0.33 lb)

### Environmental Limits

**Operating Temperature:**  
 Standard Models: -20 to 60°C (-4 to 140°F)  
 Wide Temp. Models: -40 to 85°C (-40 to 185°F)  
**Storage Temperature:** -40 to 85°C (-40 to 185°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)

### Power Requirements

**Source of Input Power:** Power input jack  
**Input Voltage:** 12 to 48 VDC

**Input Current:**  
 TCC-100/100-T: 85 mA @ 12 VDC  
 TCC-100I/100I-T: 150 mA @ 12 VDC

**Voltage Reversal Protection:** Protects against V+/V- reversal  
**Overcurrent Protection:** Protects against two signals shorted together

### Standards and Certifications

**Safety:** UL 60950-1  
**EMC:** EN 55022/24  
**EMI:** CISPR 22, FCC Part 15B Class B

**EMS:**  
 EN 61000-4-2 (ESD): Contact: 4 kV; Air: 8 kV  
 EN 61000-4-3 (RS): 80 MHz to 1 GHz: 3 V/m  
 EN 61000-4-4 (EFT): Power: 1 kV; Signal: 0.5 kV  
 EN 61000-4-5 (Surge): Power: 1 kV  
 EN 61000-4-6 (CS): 150 kHz to 80 MHz: 3 V/m  
 EN 61000-4-8 (PFMF)

**Green Product:** RoHS, CRoHS, WEEE

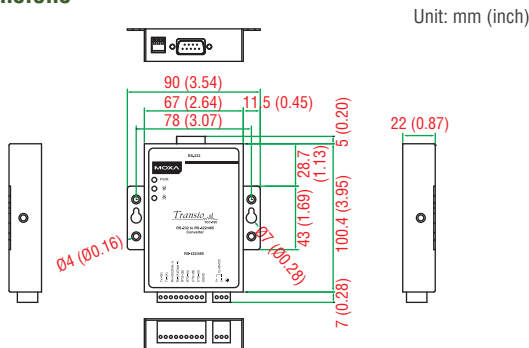
### MTBF (mean time between failures)

**Time:** 3,017,857 hrs  
**Standard:** MIL-HDBK-217F

### Warranty

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions



## Ordering Information

### Available Models

**TCC-100:** RS-232 to RS-422/485 converter, -20 to 60°C operating temperature  
**TCC-100I:** RS-232 to RS-422/485 converter with optical isolation, -20 to 60°C operating temperature  
**TCC-100-T:** RS-232 to RS-422/485 converter, -40 to 85°C operating temperature  
**TCC-100I-T:** RS-232 to RS-422/485 converter with optical isolation, -40 to 85°C operating temperature

### Package Checklist

- 1 TCC-100/100I media converter
- Power wiring: CBL-PJTB-10
- Mounting kit: DK35A
- Quick installation guide (printed)
- Warranty card
- Rubber pad