

# 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 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, 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  
**ESD Protection:** 15 KV  
**Optical Isolation:** 2 KV (TCC-100I/100I-T)

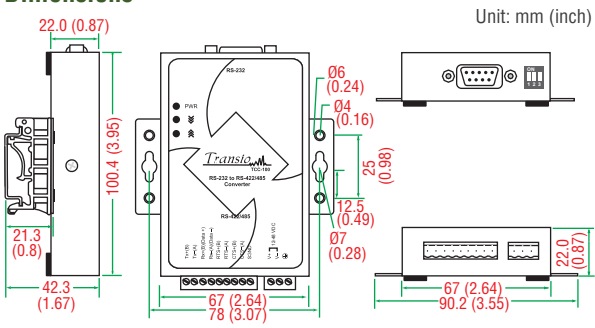
### Physical Characteristics

**Housing:** Aluminum  
**Dimensions:** 67 x 100.4 x 22 mm (2.64 x 3.93 x 0.87 in)  
**Weight:** 148 ± 5 g

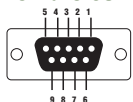
### Environmental Limits

**Operating Temperature:**  
Standard Models: -20 to 60°C (-4 to 140°F)  
Wide Temp. Models: -40 to 85°C (-40 to 185°F)

### Dimensions



### DB9 female connector



PIN	RS-232	PIN	RS-232
1	—	5	GND
2	TxD	6	—
3	RxD	7	CTS
4	—	8	RTS

**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

### Power Consumption:

TCC-100/100-T: 300 mA @ 12 V  
TCC-100I/100I-T: 400 mA @ 12 V

**Voltage Reversal Protection:** Protects against V+/V- reversal

**Over Current Protection:** Protects against two signals shorted together

### Standards and Certifications

**Safety:** UL 60950-1

**EMC:** CE, FCC

**EMI:** FCC Part 15 Subpart B Class B

### EMS:

IEC 61000-4-2 (ESD) Level 2,  
IEC 61000-4-3 (RS) Level 2,  
IEC 61000-4-4 (EFT) Level 2,  
IEC 61000-4-5 (Surge) Level 2,  
IEC 61000-4-6 (CS) Level 2,  
IEC 61000-4-8 (SFMF) Level 1

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

**MTBF (mean time between failures)**

**Time:** 3,017,857 hrs

**Database:** MIL-HDBK-217F

### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

## 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
- DK-35A: DIN-Rail mounting kit
- Power jack to 3-pin terminal block adaptor
- Quick installation guide (printed)
- Warranty card