

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 55032/24
EMI: CISPR 32, 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

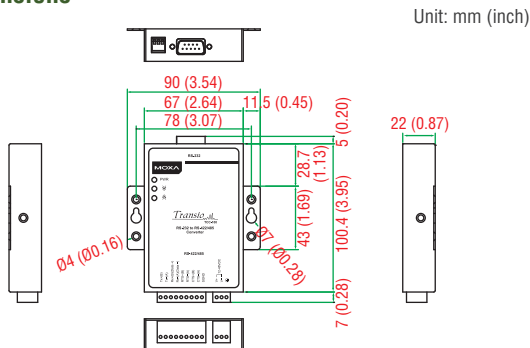
MTBF (mean time between failures)

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

Warranty

Warranty Period: 5 years
Details: See www.moxa.com/warranty

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