

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: Metal
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)
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: 85 mA @ 12 V
TCC-100I/100I-T: 150 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

Ordering Information

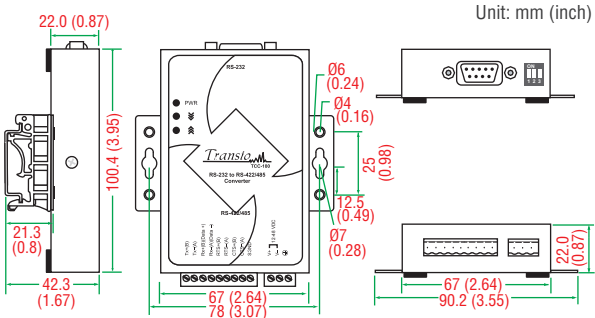
Available Models

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

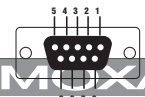
Package Checklist

- 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

Dimensions



DB9 female connector



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