

TCC-120/120I

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



- > Boost serial signal to extend transmission distance
- > Wall or DIN-Rail mounting
- > Terminal block for easy wiring
- > Power input from terminal block
- > DIP switch setting for built-in terminator (120 ohm)
- > Boost RS-422 or RS-485 signal, or convert RS-422 to RS-485
- > 2 kV isolation protection (TCC-120I)

2 kV Isolation
15 kV ESD



Introduction

The TCC-120 and TCC-120I are RS-422/485 converters/repeaters designed to extend RS-422/485 transmission distance. Both products have a superior industrial-grade design that includes

DIN-rail mounting, terminal block wiring, and external terminal block for power. In addition, the TCC-120I supports optical isolation for system protection. The TCC-120 and TCC-120I are ideal RS-422/485 converters/repeaters for critical industrial environments.

Specifications

Serial Communication

Connectors: Terminal Block on both ends

Baudrate: 50 bps to 921.6 kbps

Signals:

RS-422/485-4w: TxD+, TxD-, RxD+, RxD-

RS-485-2w: Data+, Data-

RS-485 Data Direction Control: ADDC® (automatic data direction control)

ESD Protection: 15 kV for all signals

Optical Isolation: 2 kV (TCC-120I only)

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: -20 to 60°C (-4 to 140°F)

Storage Temperature: -20 to 75°C (-4 to 167°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements

Source of Power Input: Power input jack

Input Voltage: 12 to 48 VDC

Power Consumption:

TCC-120: 65 mA @ 12 V

TCC-120I: 180 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:

EN 61000-4-2 (ESD) Level 2,

EN 61000-4-3 (RS) Level 2,

EN 61000-4-4 (EFT) Level 2,

EN 61000-4-5 (Surge) Level 2,

EN 61000-4-6 (CS) Level 2,

EN 61000-4-8 (PFMF) Level 1

Green Product: RoHS, CRoHS, WEEE

MTBF (mean time between failures)

Time: 1,949,025 hrs

Database: Telcordia (Bellcore), GB

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Ordering Information

Available Models

TCC-120: RS-422/485 converter/repeater

TCC-120I: RS-422/485 converter/repeater with 2 kV optical isolation

Package Checklist

- 1 TCC-120 or TCC-120I media converter
- DK-35A: DIN-Rail mounting kit
- Quick installation guide (printed)
- Warranty card

Dimensions

Unit: mm (inch)

