

# 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)



### 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](http://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)

