

# 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



## 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 an 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)

**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 g (0.33 lb)

### 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

### Input Current:

TCC-120: 65 mA @ 12 VDC

TCC-120I: 180 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 55022/24

**EMI:** CISPR 22, 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:** 1,949,025 hrs

**Standard:** Telcordia (Bellcore), GB

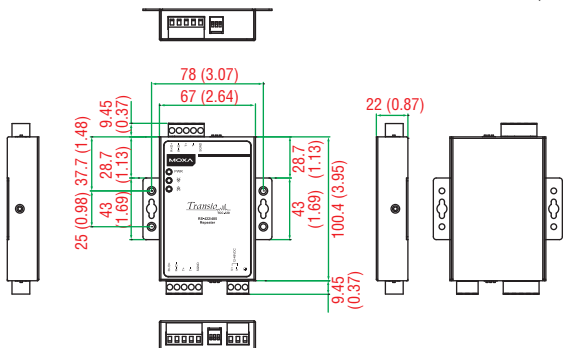
### Warranty

**Warranty Period:** 5 years

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

### Dimensions

Unit: mm (inch)



## 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
- Power wiring: DBL-JTB-10
- Mounting kit: DK35A
- Quick installation guide (printed)
- Rubber pad