

# TCC-120/120I Series

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



## Features and Benefits

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

## Certifications



## 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 Interface

Connector	Terminal block
No. of Ports	2
Serial Standards	RS-422, RS-485
Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Isolation	TCC-120I/120I-T: 2 kV
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Terminator for RS-485	N/A, 120 ohms, 120 kilo-ohms

### Serial Signals

RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND

## Power Parameters

Input Current	TCC-120: 65 mA @ 12 VDC TCC-120-T: 65 mA @ 12 VDC TCC-120I: 180 mA @ 12 VDC TCC-120I-T: 180 mA @ 12 VDC
Input Voltage	12 to 48 VDC
No. of Power Inputs	1
Overload Current Protection	Supported
Power Connector	Terminal block (for DC models)
Power Consumption	TCC-120/120-T: 65 mA @ 12 VDC TCC-120I/120I-T: 180 mA @ 12 VDC

## Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	67 x 100.4 x 22 mm (2.64 x 3.93 x 0.87 in)
Weight	148 g (0.33 lb)
Installation	DIN-rail mounting (with optional kit), Wall mounting

## 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 (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

## Standards and Certifications

EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF
Environmental Testing	IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3
Safety	EN 60950-1, IEC 60950-1
Vibration	IEC 60068-2-6

## MTBF

Time	1,949,025 hrs
Standards	Telcordia (Bellcore), GB

## Warranty

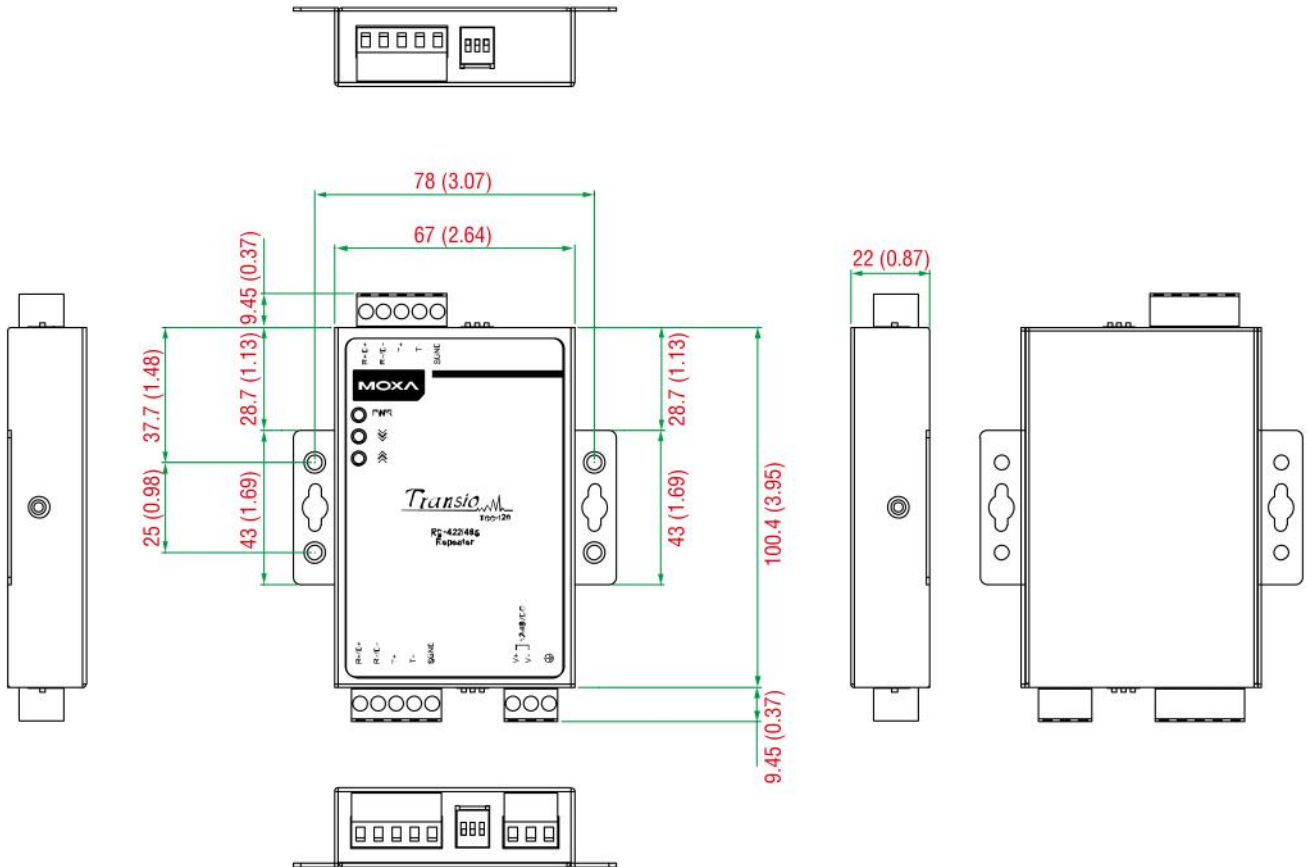
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

## Package Contents

Device	1 x TCC-120/120I Series isolator
Cable	1 x terminal block to power jack converter
Installation Kit	1 x DIN-rail kit 1 x rubber stand
Documentation	1 x quick installation guide 1 x warranty card

## Dimensions

Unit: mm (inch)



## Ordering Information

Model Name	Isolation	Operating Temp.
TCC-120	–	-20 to 60°C
TCC-120-T	–	-40 to 85°C
TCC-120I	✓	-20 to 60°C
TCC-120I-T	✓	-40 to 85°C

## Accessories (sold separately)

### DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm
-------	------------------------------

### Power Cords

CBL-PJTB-10	Non-locking barrel plug to bare-wire cable
-------------	--

© Moxa Inc. All rights reserved. Updated Nov 12, 2018.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.