

TCC-100/100I Series

Industrial RS-232 to RS-422/485 converters with optional 2 kV isolation



Features and Benefits

- 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 mounting and DIN-rail mounting
- Plug-in terminal block for easy RS-422/485 wiring
- LED indicators for power, Tx, Rx
- Wide-temperature model available for -40 to 85°C environments

Certifications



Introduction

The TCC-100/100I Series of RS-232 to RS-422/485 converters increases 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, an 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

Serial Interface

Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Connector	Terminal block
Isolation	TCC-100I/100I-T: 2 kV (-I model)
No. of Ports	2
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Serial Standards	RS-232, RS-422, RS-485
Terminator for RS-485	N/A, 120 ohms, 120 kilo-ohms

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
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-100/100-T: 85 mA @ 12 VDC TCC-100I/100I-T: 150 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-100/100-T: 85 mA @ 12 VDC TCC-100I/100I-T: 150 mA @ 12 VDC

Physical Characteristics

Housing	Metal
Dimensions	67 x 100.4 x 22 mm (2.64 x 3.93 x 0.87 in)
IP Rating	IP30
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	3,017,857 hrs
Standards	Telcordia (Bellcore), GB

Warranty

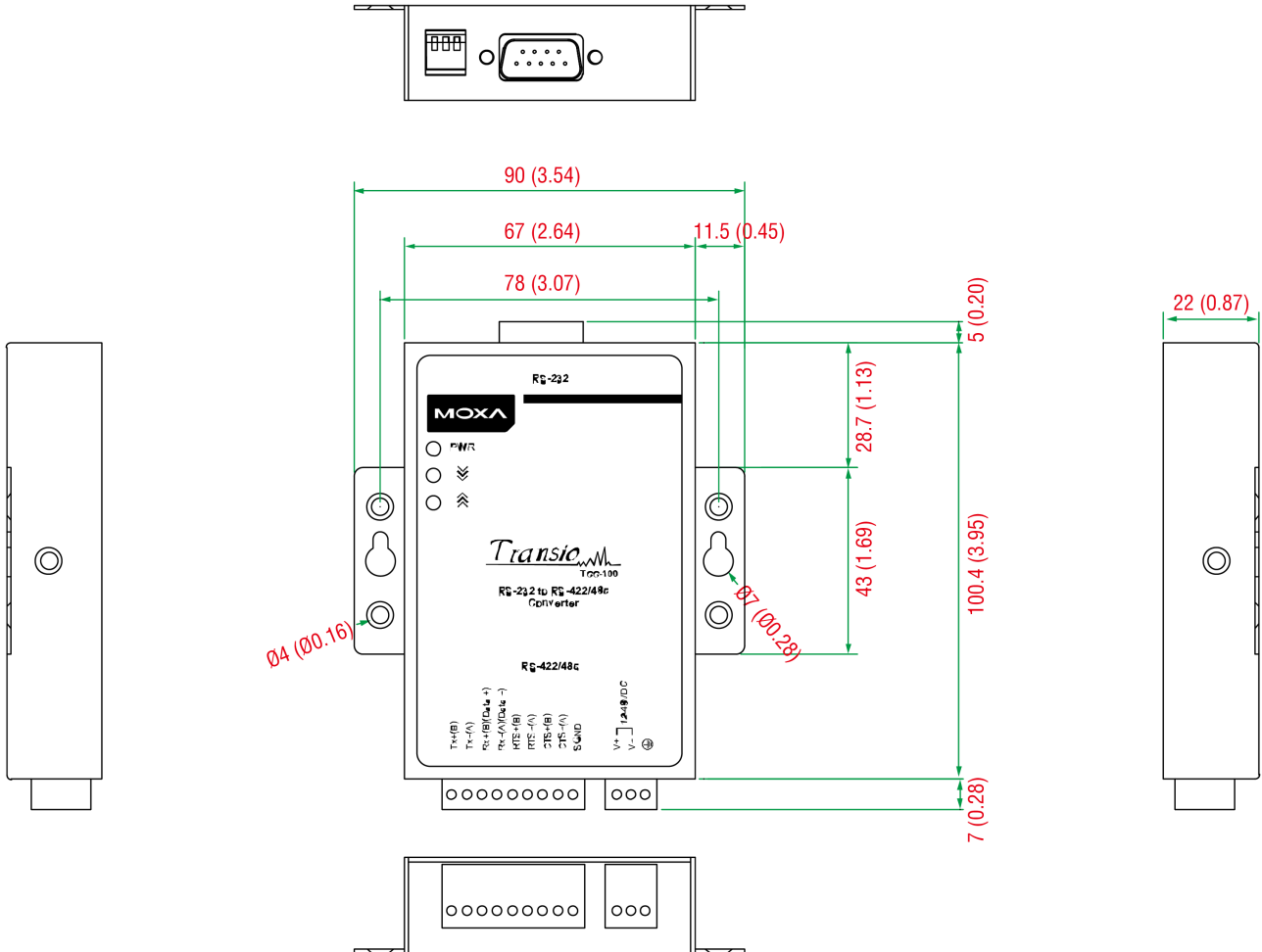
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x TCC-100/100I Series converter
Installation Kit	1 x DIN-rail kit 1 x rubber stand
Cable	1 x terminal block to power jack converter
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Isolation	Operating Temp.
TCC-100	–	-20 to 60°C
TCC-100-T	–	-40 to 85°C
TCC-100I	✓	-20 to 60°C
TCC-100I-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.