

TCC-100/100I

Isolated RS-232 to RS-485/422 Converter

Features

- RS-232 to RS-422 conversion with RTS/CTS support
- RS-232 to 2/4-Wire RS-485 conversion
- 2 KV Isolation Protection (TCC-100I)
- Wall and DIN-Rail mountable
- Plug-in screw terminal Block for easy 422/485 wiring
- PWR, Tx, and Rx LEDs
- Surge protection, 16 KV ESD
- Operating Temperature from -20°C to 60°C



Introduction

TCC-100I is an isolated RS-232 to RS-422/485 converter designed for users who need an industrial grade interface conversion product to extend RS-232 transmission distance and increase networking capability. Its superior industrial application design, which includes DIN-rail mounting, terminal block wiring, external terminal block power, and optical isolation for system protection, makes TCC-100I suitable for use in critical industrial environments.

Auto Baud Rate Detection

TCC-100/100I incorporates a method for automatically detecting the serial signal baud rate by hardware. This is an extremely convenient feature for the user. Even if a device's baud rate is changed, the signal will still be transmitted through the RS-232 to RS-422/485 converter without problem.

Isolation Protection

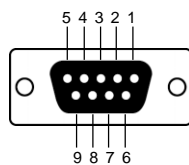
MOXA electrical Isolation technology uses two photo couplers to create a gap in each electrical signal. One photo coupler transforms the electrical signal into a light signal, which is transmitted across a small gap, and then the other photo coupler transforms the light back into an electrical signal on the other side. In this way, the two electrical circuits are completely isolated from each other, limiting the damage that could otherwise be caused by power surges in the electrical signal.

Automatic Data Direction Control (ADDC)

ADDC a MOXA leading technology, uses a clever hardware solution to take care of the RS-485 data flow control problem. The TCC-100/100I converter uses embedded ADDC™ technology, a hardware data flow solution, to automatically sense and control data direction, making the handshaking signal method obsolete.

PIN Assignment

	PIN	RS-232
DB9 Female	1	DCD
	2	TxD
	3	RxD
	4	DSR
	5	GND
	6	DTR
	7	CTS
	8	RTS

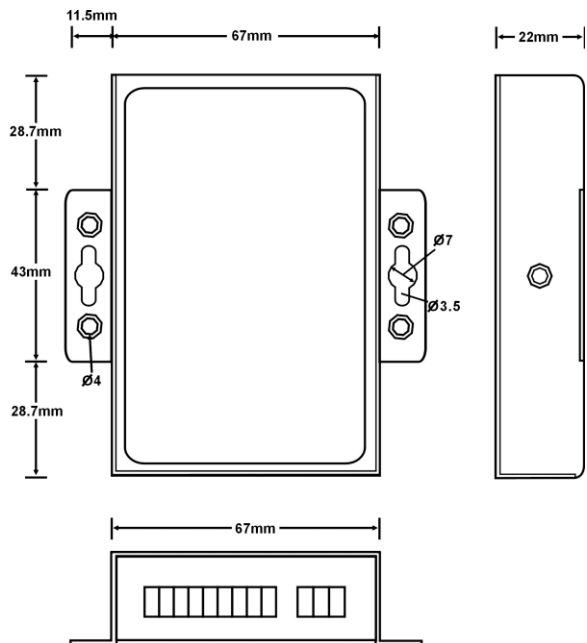


Ordering Information

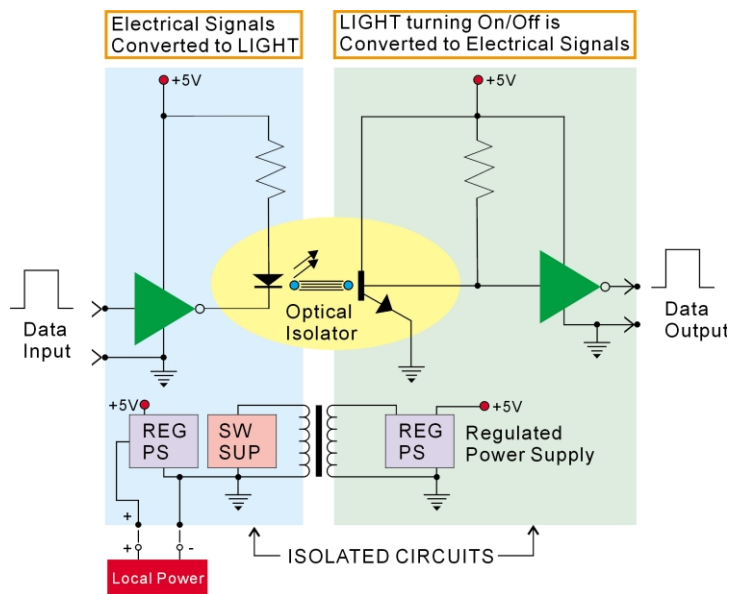
- TCC-100**
RS-232 to RS-422/485 Converter
DIN Rail mounting kit and manual included
- TCC-100I**
Isolated RS-232 to RS-422/485
Converter DIN Rail mounting kit
and manual included

TCC-100/100I

■ Dimensions



■ Isolation Block Diagram



Specifications

Communications

RS-232 Signal

Supports Tx, Rx, DTR, DSR, RTS, CTS, DCD (Female DB9 Interface)

RS-422/485 Signal

Supports RS-422, 4/2-wire RS-485 (DIP Switch selectable)
Supports 4-wire RS-422, up to 10 nodes, 1.2km with RTS, CTS
Supports 4-wire RS-485, up to 32 nodes, 1.2km
Supports 2-wire RS-485, up to 32 nodes, 1.2km

RS-422/485 Data Direction Control ADDC™

Baud Rate

50 bps 230.4 kbps

Surge Protection

16 KV ESD RMS, for all signals

Isolation

2 KV (TCC-100I), Power/Signal

Environment

Operating Temperature

-20°C to 60°C

Storage Temperature

-20°C to 85°C

Humidity

5 to 95% RH

Power

Input Power Voltage

External Power 12-30 VDC, Terminal Block

Reverse Protection

Yes, V+ and V- reverse protection

Over current protection

Yes, protection for 2 signals shorted together

Power Consumption

TCC-100: 3.4 W
TCC-100I: 4.68 W

Mechanical

Dimensions (WxDxH)

67x100x22mm
90x100x22mm (including DIN mounting kit)

Case

Aluminum

Plug-in screw terminal block

#22 - #16 AWG

Color

Black

Weight

148±5g

Regulatory Approval

CE, FCC (Class B)