BB-4850I9TB

Isolated Serial Converter

Features

Converts RS-232 data signals to RS-422/485
1500V optical isolation for data lines and ground
Data rate: up to 9600 bps
Inline installation
10 to 14 Vdc power supply (required, not included, sold separately)
cULus, FCC, CE

Introduction

Model BB-4850I9TB, isolated converter, converts unbalanced, full-duplex RS-232 signals to balanced full-duplex (4-wire) RS-422/485 or half-duplex (2-wire) RS-485 signals.

The converter provides 1500 Volts RMS optical isolation for data lines and ground (and connected devices) between the RS-232 and RS-422/485 signals. RS-232 port has a female DB9 connector. RS-422/485 port has a 6-position terminal block.

The RS-232 side of the converter draws power from the handshake lines (DTR, RTS). At least one handshake line must be asserted (raised high) to power the RS-232 side. The RS-422/485 side must be powered by an external 12 Vdc power supply (not included, sold separately).

Ordering Information

Model No.	RS-232 Connecter	RS-422/485 Connector
BB-4850I9TB	DB9 Female	Terminal Block

Accessories – Sold Separately

BB-SMI6-12-V-ST – Power supply, 12 Vdc 6 Watt, stripped and tinned, international AC input, international AC blades

BB-9PAMF6 - 1.8 m (6 ft) RS-232 serial cable

BB-MMNM9 - DB9 male to DB9 male null modem adapter

Specifications

Serial Technology	
Data Rate	9600 bps
RS-232 Connector	DB9 female (DCE)
RS-232 Signals	TD, RD, GND
RS-422/485 Connector	Terminal block
RS-485, 2-Wire	Data A (-), Data B (+), GND
RS-422/485, 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
Isolation	
Lines Protected	Data lines
Method	Optical
Rating	1500 V
Terminal Block	
Wire Size	26 to 16 AWG
Torque	2.0 lb fin
Power *Note: Requires Two (2) Power Sources*	
RS-232 Source	Port-powered from DTR and RTS handshake lines
RS-422/485 Source	External power supply (not included, sold separately)
RS-422/485 Connector	Terminal block
RS-422/485 Consumption	0.9 W
RS-422/485 Source	External power supply (not included, sold separately)

Mechanical	
Enclosure Material	Plastic
Dimensions	5.5 x 8.3 x 1.7 cm (2.2 x 3.3 x 0.7 in)
Mounting	Inline installation
Environmental	
Operating Temperature	0 to +50 °C (+32 to +122 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95%, non-condensing
Meantime Between Failures (MTBF)	
MTBF	272581 hours
MTBF Method	MIL 217F Parts Count Reliability Prediction
Regulatory – Approvals / Standards / Directives	
Approvals	FCC, CE, cULus File Number: E222870
CE – Directives	2014/30/EU – Electromagnetic Compatibility Directive 2011/65/EU – Amended by (EU) 2015/863 Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE)
CE – Standards	EN 55032 (Class B) - Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements EN 55024 – Information Technology Equipment – Immunity Characteristics – Limits and Methods of Measurement
IEC Standards	EN 61000-6-1 – Generic Immunity Standard for Residential, Commercial and Light-industrial Environments