RS-232 to RS-422/485 Industrial Isolated Converter

Model BB-485LDRC9

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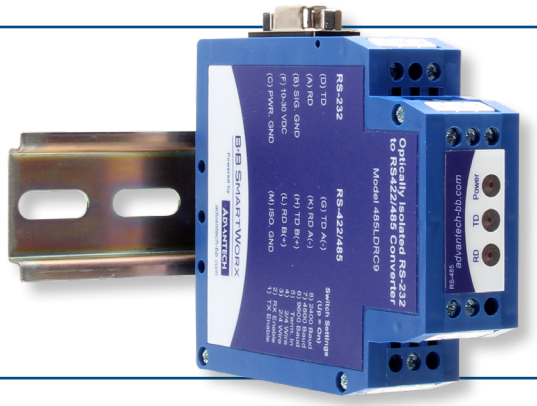

PRODUCT FEATURES

- Converts RS-232 to RS-422/485
- 2 kV optical isolation on input/output; 500W surge suppression
- 115.2 kbps data rate; extends data up to 1.2 km (4000 ft)
- -40 to +80 °C wide operating temperature
- 35 mm DIN rail mount (panel mount adapter sold separately)
- cULus Recognized, NEMA TS2, CE, UL508
- Modbus compatible
- External power supply required (not included, sold separately)

Model BB-485LDRC9 is an optically isolated RS-232 to RS-422/485 converter. RS-232 signals interface through a DB9 female connector or a terminal block. RS-422/485 signals and power inputs connect to the terminal block. Terminal blocks are arranged to allow easy wiring inside a control panel.

Built-in Automatic Send Data Control circuitry allows quick set-up and eliminates the need for external software drivers to control handshake signals. The converter operates on externally sourced 10-30 VDC power (required, not included, sold separately).

Optically isolated data lines (2,000 V on input/output) with 500W surge suppression ensure that connected equipment is protected even in the harshest environments. DIN rail mount design snaps on standard 35mm rail and the small form factor fits neatly into tight cabinets.

Modbus compatible, Model BB-485LDRC9 is ideal for critical industrial communications, factory automation, in-cabinet conversion, warehouse automation, security, and many other applications.

ORDERING INFORMATION

MODEL NUMBER	RS-232 CONNECTOR	RS-422/485 CONNECTOR
BB-485LDRC9	DB9 Female or Terminal Block	Terminal Blocks

ACCESSORIES – sold separately

BB-MDR-20-24 – Power supply, 24W, 24V, slim-line, DIN rail mount, plastic

BB-9PAMF6 – RS-232 DB9 male to DB9 female serial cable, 1.8 m (6 ft)

SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps
RS-232 - 2 options	
Option 1: Connector	DB9 female (DCE)
Option 1: Signals	TD, RD, GND
Option 2: Connector	Terminal block
Option 2: Signals	TD, RD, GND
RS-422	
Connector	Terminal block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND
Termination	120 (switchable)
RS-485	
Connector	Terminal block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND
Modes	2-wire and 4-wire
Termination	120 Ohms (switchable)
ISOLATION	
Lines Protected	Data lines
Method	Optical
Rating	2,000 V
SURGE SUPPRESSION	
Lines Protected	Data lines
Method	TVS
Rating	7.5V bi-directional avalache breakdown device 500W peak power dissipation
Response Time	< 1 pico-second
INDUSTRIAL BUS	
Modbus	ASCII / RTU

All product specifications are subject to change without notice.
BB-485LDRC9_4219ds

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SPECIFICATIONS - CONTINUED

POWER	
Connector	Terminal block
Voltage	10-30 VDC
Consumption	0.5 W
Source	External power source required (not included, sold separately)
TERMINAL BLOCKS	
Wire Size	24 to 14 AWG
Torque	4 kfg-cm
LED INDICATORS	
Power (RED)	On when power applied
TD (RED)	Flashes when RS-422/485 data is transmitted
RD (RED)	Flashes when RS-422/485 data is received
ENCLOSURE	
Material	Plastic
IP Rating	20
Dimensions	2.5 x 7.9 x 9.5 cm (1.0 x 3.1 x 3.7 in)
Mounting	35 mm DIN rail (panel mount adapter available)

SPECIFICATIONS - CONTINUED

ENVIRONMENTAL	
Operating Temperature	-40 to +80 °C (-40 to +176 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95%, non-condensing
MEANTIME BETWEEN FAILURES (MTBF)	
MTBF	257448 hours
Calculation Method	MIL 217F Parts Count Reliability Prediction
REGULATORY / APPROVALS / CERTIFICATIONS	
cULus Recognized, UL508, NEMA TS2	
Directives - CE	2014/30/EU - Electromagnetic Compatibility Directive (EMC) 2015/863/EU - Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)
Standards - CE	EN 55032 Class B - Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements EN55024 - InformationTechnology Equipment - Immunity Characteristics - Limits and Methods of Measurement

MECHANICAL DIAGRAM