Industrial Isolated Converter

485LDRC9

B+B SmartWorx

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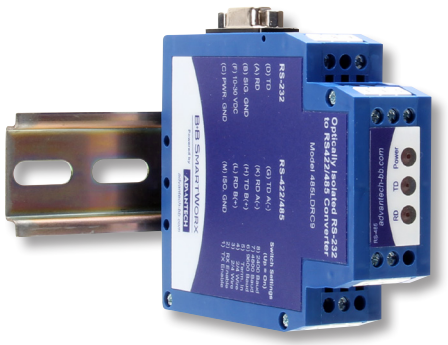

PRODUCT FEATURES

- Extend data up to 1.2 km (4,000 ft.)
- 2 kV optical isolation on input/output
- Wide operating temperature (-40 to +80 °C)
- 115.2 kbps data rate
- Modbus compatible
- UL Recognized, NEMA TS2
- Automatic Send Data Control

The 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.

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 a small form factor fits neatly into tight cabinets.

The 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
485LDRC9	DB9 Female or Terminal Block	Terminal Blocks

ACCESSORIES

MDR-20-24 - PS, DIN, SLIM, PLASTIC, 24W, 24V

9PAMF6 - 6 ft. (1.8 m) 232 DB9 male to DB9 female serial cable

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 Ohm (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

SPECIFICATIONS - CONTINUED

POWER	
Connector	Terminal block
Voltage	10-30 VDC
Consumption	0.5 W
Source	External powering required
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)

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
MTBF, 485LDRC9	257448 hours
MTBF Calculation Method	MIL 217F Parts Count Reliability Prediction
APPROVALS / CERTIFICATIONS - 485LDRC9	
cULus Recognized, File Number: E222870, NEMA TS2	
2004/108/EC	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Sustances Directive
EN 55022: +AC	Information technology equipment - Class A RF Emissions
EN 55024	Information technology equipment - Immunity (Light-industrial Environments)
EN 61000-4-2	ESD Immunity
EN 61000-4-3: +A2	Radiated Field Immunity (RFI)
EN 61000-4-4	EFT/Burst Immunity

MECHANICAL DIAGRAM

Dimensional Diagram of 485LDRC9