

485DRCI

Industrial RS-232 to RS-422/485 Converter

- ✓ Data Rates up to 115.2 Kbps
- ✓ 10 – 48 VDC Input Power Range
- ✓ Wide Operating Temperature
- ✓ 3-Way 2000V Optical Isolation
- ✓ Modbus ASCII/RTU Compatible
- ✓ UL Class 1 Division 2
- ✓ Built-in, Switchable Termination & Bias

The ILinx™485DRCI is our premium Industrial RS-232 to RS-422/485 Isolated Converter.

Designed for rugged industrial use, it is UL approved and certified for operation in Class 1 Division 2 environments.

This DIN rail mountable converter optically isolates and converts unbalanced, full or half-duplex RS-232 signals to balanced RS-422/485 signals at baud rates up to 115.2 Kbps. In addition to optical isolation, the unit has surge suppression on the RS-422/485 lines. Featuring Automatic Send Data Control circuitry, it does not require special software control of handshake signals in RS-485 mode. The removable terminal blocks for power and RS-422/485 signals make wiring easy. It is powered by a supply voltage of 10 to 48 VDC which is isolated from all data and signal ground lines. Configuration is made easy with a 12 position DIP switch on the bottom of the converter.

Remember, when it comes to reliable communications in harsh industrial environments, B&B Electronics' ILinx™ brand converters and isolators are your number one choice.



Specifications

Serial Technology

RS-232	TD, RD, GND
RS-422	TDA(-), TDB(+), RDA(-), RDB(+)
RS-485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+)
RS-485 2-Wire	Data A(-), Data B(+)
RS-232 CON.	DB9 Female (DCE)
RS-422/485 CON.	5 Position, Removable Terminal Block
Data Rate	1.2 to 115.2 Kbps
Isolation	2 KV RMS, 1 minute
Surge Protection	600 W Peak Power Dissipation Clamping time < 1 pico-second
Industrial Bus Bias Termination	MODBUS ASCII / RTU Built-in, switchable 1.2KΩ XMT/RCV Built-in, switchable 120Ω

Power

Source	External
Power Connector	2 Position Removable Terminal Block
Input Voltage	10 to 48 VDC (56 VDC Maximum)
Power Consumption	0.5 W typical (0.9 W with termination)

Terminal Blocks

Wire Size Accepted	28 to 12 AWG
Pitch	5.08 mm
Insulation Resistance	≥500 MΩ @ 500 VDC
Maximum Torque	5 Kg / cm

Indicators

Power	Red LED
TD / RD	Red LED

Mechanical

Dimensions	4.9 x 4.5 x 1.3 in (12.3 x 11.3 x 3.2 cm)
Enclosure	IP 20 Plastic, 35 mm DIN Mount
Weight	0.45 lbs (204 g)
MTBF	254617 hours
MTBF Calc. Method	Parts Count Reliability Prediction

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

Regulatory

Approvals	FCC, CE, UL, UL Class 1 Division 2 Groups A,B,C,D
UL File	E222870 (HAZLOC E245458)

Ordering Information

485DRCI	Ind. RS-232 to RS-422/485 Converter
Required but Not Included	
Power Supply	MDR-20-24 or PS5R-SC24 (C1 D2)

