B&B ELECTRONICS

PRODUCT INFORMATION

485OPDRI
Industrial RS-422/485 Isolated Repeater

- ✓ **Supports Data Rates up to 115.2 Kbps**
- ✓ **Extends Signal 4,000 feet (1200 Meters)**
- ✓ **Wide -40 to 80°C Temperature Range**
- ✓ **10 to 48 VDC Input Power Range**
- ✓ **2000 V 3-Way Optical Isolation**
- ✓ **UL Class 1 DIV 2 Listed**
- ✓ **Built-in, Switchable Termination & Bias**

The 485OPDRI is our premium Industrial Isolated RS-422/485 Isolated Repeater. Designed for rugged industrial environments, it is UL listed and certified for use in Class 1 Division 2 locations. Powerful Optical Isolation on both data ports protects your equipment and data from damaging ground loops and surges. Additional isolation on the power supply circuits adds a third degree of protection.

Packaged in a rugged ABS plastic case, this repeater operates in wide temperature extremes. With a 35mm DIN rail mounting bracket, the 485OPDRI is easy to integrate into your control panel or other industrial equipment.

Installation and configuration is easy with DIP switches to set up baud rate and serial communications mode. Removable terminal blocks make wiring a snap. Power is connected through separate terminal block that accepts 10 to 48 VDC from any external source.

Remember, when it comes to reliable communications in harsh duty industrial locations, B&B Electronics ILinx™ Brand is you number one choice.

Specifications

Serial Technology

RS-422	TDA(-), TD(B+), RDA(-), RDB(+)
RS-485 4-Wire	TDA(-), TD(B+), RDA(-), RDB(+)
RS-485 2-Wire	Data A(-), Data B(+)
Serial Connector	5 Position, Removable Terminal Block
Data Rate	2.4 to 115.2 Kbps
Isolation	2KV RMS, 1 Minute
Surge Protection	600 W Peak Power Dissipation Clamping time < 1 pico-second
Industrial Bus	Modbus ASCII / RTU
Bias	Built-in, Switchable, 1.2KΩ XMT/RCV
Termination	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), 1.3 W (termination on both sides)

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
Data	Red LED for Each Data Port

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	0.49 lbs (222 g)
MTBF	114696 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 DIV 2, Groups A, B, C, D
UL File	E222870 (HAZLOC E245458)

Ordering Information

485OPDRI	Industrial RS-422/485 Isolated Repeater

Required but Not Included

Power Supply	MDR-20-24 or PS5R-SC24 (C1 D2)

PRODUCT INFORMATION

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ILINX SERIAL CONVERTERS

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