Industrial RS-422/485 Isolated Repeater

BB-485OPDRI

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PRODUCT FEATURES

- Extends signals another 1200 m (4000 ft)
- 2000 V, three-way optical isolation (input/output/power)
- Data rates: up to 115.2 kbps
- Wide temperature range: -40 to +80°C
- DIN rail mount IP30 case
- 10-48 VDC input (power supply required, not included, sold separately)
- UL C1/D2 Listed, FCC, CE
- Allen-Bradley 1747-AIC (DH-485 network)

Model BB-485OPDRI isolated RS-422/485 repeater is 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, it easily integrates into control panels 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 (power supply required, not included, sold separately).

Using Model BB-485OPDRi On A DH-485 Network In Place of Allen-Bradley® 1747-AIC Link Coupler

Model BB-485OPDRi RS-422/485 industrial optically isolated repeater, often used in Modbus applications, can also be configured for use in the DH-485 environment as a limited replacement for the 1747-AIC.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BB-485OPDRI	Industrial RS-422/485 Isolated Repeater

ACCESSORIES - sold separately

BB-MDR-20-24 - DIN rail mount power supply 24VDC, 1.0 A output power
BB-TBKT1 - Replacement Terminal Block - 2-position, 5.08mm, 8A, 30
BB-TBKT2 - Replacement Terminal Block - 5-position, 5.08mm, 8A, 30
BB-EK-CLIP-MPC - Replacement DIN Rail Clip

BB-485OPDRI_1019ds

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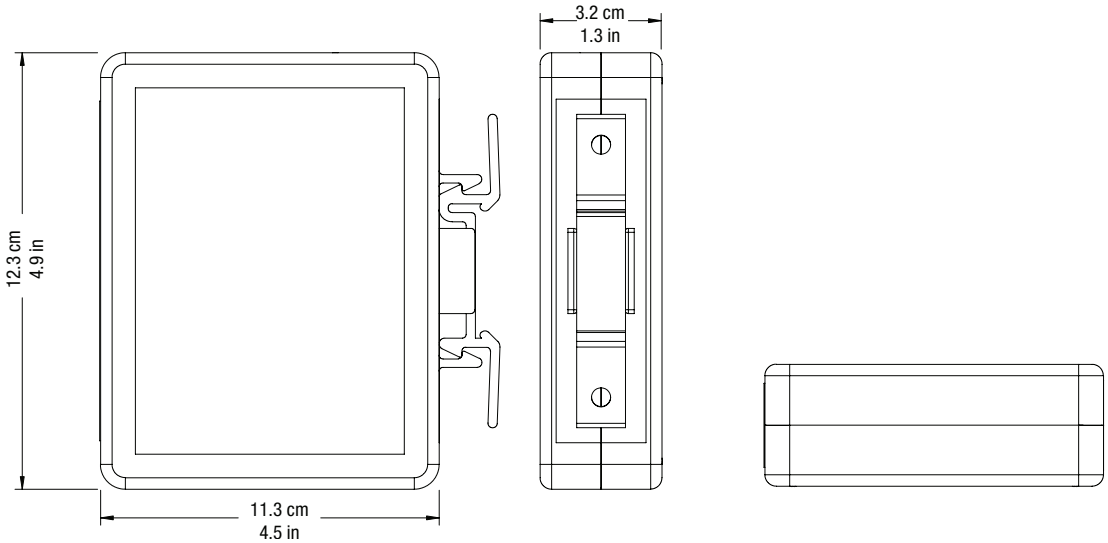
SPECIFICATIONS

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
Bias	Built-in, Switchable, 1.2KΩ XMT/RCV
Termination	Built-in, Switchable, 120Ω
INDUSTRIAL BUS	
Modbus	ASCII/RTU
DH-485	Allen-Bradley® Data Highway 485 (DH-485)
POWER	
Source	External power required (not included, sold separately)
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

SPECIFICATIONS

INDICATORS	
Power	Red LED
Data	Red LED for each Data Port
MECHANICAL	
Dimensions	12.3 x 11.3 x 3.2 cm (4.9 x 4.5 x 1.3 in)
Enclosure	IP 20 Plastic, 35 mm DIN Mount
Weight	222 g (0.49 lb)
MEANTIME BETWEEN FAILURES (MTBF)	
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, DIRECTIVES, STANDARDS	
Approvals	FCC, CE, UL, UL Class 1/Div2, Groups A,B,C,D
2014/30/EU	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive (RoHS2)
2012/19/EU	Waste Electrical and Electronic Equipment (WEEE)
EN55032 Class B	Electromagnetic compatibility of multimedia equipment - emission requirements

MECHANICAL



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