

Industrial RS-422/485
Isolated Repeater
485OPDRI



PRODUCT FEATURES

- Supports data rates up to 115.2 Kbps
- Extends signal 1,200 m (4,000 feet)
- Wide -40 to +80°C temperature range
- 10 to 48 VDC input power range
- 2000 V, 3-way optical isolation
- UL Class 1/Division 2 Listed
- Built-in, switchable termination & bias

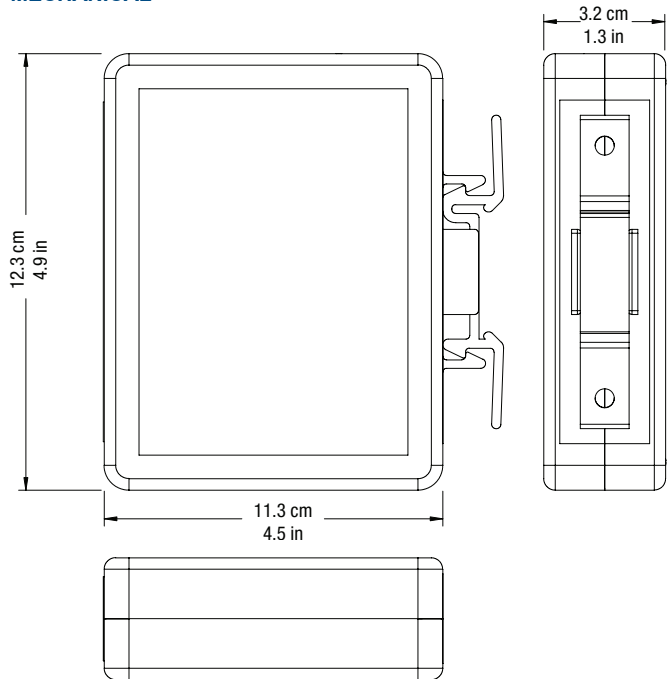
ORDERING INFORMATION

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

ACCESSORIES

MDR-20-24	- DIN rail mount power supply 24VDC, 1.0 A output power
TBKT3	- Two replacement 5 position terminal blocks
TBKT1	- Replacement 2 position terminal block
EK-CLIP-MPC	- Replacement DIN Rail Clip

MECHANICAL



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All product specifications are subject to change without notice.
485OPDRI_1317ds

The 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 add 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.

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

The 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.

Industrial RS-422/485 Isolated Repeater

485OPDRI



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, 1.2K Ω XMT/RCV
Termination	Built-in, Switchable, 120 Ω
INDUSTRIAL BUS	
Modbus	ASCII/RTU
DH-485	Allen-Bradley® Data Highway 485 (DH-485)
POWER	
Source	External power required
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 M Ω @ 500 VDC
Maximum Torque	5 Kg / cm
INDICATORS	
Power	Red LED
Data	Red LED for each Data Port

SPECIFICATIONS

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 lbs)
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)
CERTIFICATIONS	
2004/108/EC	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive
EN55022: +AC (Class B)	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement
EN61000-6-1	Generic Standards of Residential, Commercial and Light Industrial Environments
EN61000-4-2	ESD Immunity
EN61000-4-3: +A2	Radiated Immunity
EN61000-4-4	EFT/Burst Immunity
EN61000-4-6	Conducted Immunity