BB-232OPDRI-PH

Heavy Industrial
RS-232 Isolated Repeater

Features

- Extends RS-232 data signals
- 2 kV, three-way isolation (input/output/power)
- Data rate: 1.2 to 115.2 kbps
- Wide operating temperature: -40 to +85 °C
- Rugged IP30 metal case (panel or DIN rail mount)
- 10-48 Vdc input power (power supply required, sold separately)

Introduction

Model BB-232OPDRI-PH is a premium, heavy industrial RS-232 isolated repeater. Designed for rugged industrial environments, it has passed some of the most exacting compliance tests in the industry. Meeting IEC 61850-3 and IEEE 1613 requirements, it is suitable for installation in electrical substations. (These specifications are more stringent than NEMA TS1/TS2 transportation application requirements.)

Powerful isolation on both data ports protects your equipment and data from damaging ground loops and surges. Additional isolation on power supply circuits adds a third degree of protection.

Packaged in a rugged IP30 metal case, this repeater operates in wide temperature extremes. The panel mount form factor, with DIN rail mount option, makes it easy to integrate into your control panel or other industrial equipment.

Installation and configuration is easy. Data is connected with a DB9 female connector (DCE) and a DB9 male connector (DTE).

Power is connected via terminal block that accepts 10 to 48 Vdc from any external source. (Power supply required, not included, sold separately.)

Ordering Information

Model No.	Description
BB-232OPDRI-PH	Heavy Industrial RS-232 Isolated Repeater

Accessories – Sold Separately

BB-MDR-40-24 – DIN rail mount power supply, 24Vdc, 1.7 A output power

BB-DRAD35 – DIN rail mounting kit, 35mm

BB-TBKT1– Replacement terminal block - 2-position, 5.08mm, 8A, 300V

Specifications

Serial Technology	
Serial Connectors	DB9 Female (DCE), DB9 Male (DTE)
Data Rate	Up to 115.2 Kbps
Isolation	2 kV RMS, 1 minute
Power	
Power Source	External source (required, not included sold separately)
Power Connector	2-position removable terminal block
Input Voltage	10 to 48 Vdc (56 Vdc, maximum)
Power Consumption	0.55 W, typical; 1.5 W, maximum
Terminal Blocks	
Wire Size Accepted	28 to 12 AWG, Copper wire only
Pitch	5.08 mm
Insulation Resistance	≥500 MΩ @ 500 Vdc
Maximum Torque	5 Kg / cm
LED Indicators	
Power	Red LED
Data	Greed LED TD, RD, CTS, RTS
Mechanical	
Dimensions	13.24 x 9.29 x 3.30 cm (5.2 x 3.7 x 1.3 in)
Enclosure	IP30 metal, panel mount (DIN rail mount option)
Weight	208.65 gm (0.46 lb)

Environmental	
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +85 °C
Operating Humidity	0 to 95%, non-condensing
Meantime Between Failures (MTBF)	
MTBF	194712 hours
Calculation Method	Parts Count Reliability Prediction
Regulatory – Approvals / Standards / Directives	
FCC, CE, UL C1/D2 File Number E245458	
CE - Directives	2014/30/EU - Electromagnetic Compatibility Directive 2011/65/EU - amended by (EU) 2015/863 Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)
CE - Standards	**EMC:** EN 55032 - Class A Electromagnetic compatibility of multimedia equipment – Emission requirements EN 55024 - Information Technology Equipment – Immunity Characteristics – Limits and methods of measurement
Other	EN 55011 + AC – Information Technology Equipment – Class A RF Emissions EN 61000-6-2 – Generic Immunity Standard for (Heavy) Industrial Environments IEC 61850-3 IEEE 1613

Mechanical Drawing