

# Heavy Industrial RS-232 Isolated Repeater

Model BB-232OPDRI-PH

# ADVANTECH

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## PRODUCT FEATURES

- Extends RS-232 data signals
- 2kV, 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)

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 NUMBER	DESCRIPTION
BB-232OPDRI-PH	Heavy Industrial RS-232 Isolated Repeater

## ACCESSORIES – sold separately

**BB-MDR-40-24** - DIN rail mount power supply, 24 VDC, 1.7 A output power

**BB-DRAD35** - DIN rail mounting kit, 35mm

**BB-TBKT1** - Replacement Terminal Block - 2-position, 5.08mm, 8A, 30

All product specifications are subject to change without notice.  
BB-232OPDRI-PH\_1019ds

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## SPECIFICATIONS

### SERIAL TECHNOLOGY

Serial Connector	DB9 F (DCE), DB9 M (DTE)
Data Rate	Up to 115.2 Kbps
Isolation	2 KV RMS, 1 minute

### POWER

Source	External (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
Pitch	5.08 mm
Insulation Resistance	≥500 MΩ @ 500 VDC
Maximum Torque	5 Kg / cm

### INDICATORS

Power	Red LED
Data	Green 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)

### MEANTIME BETWEEN FAILURES (MTBF)

MTBF	194712 hours
MTBF Calc. Method	Parts Count Reliability Prediction

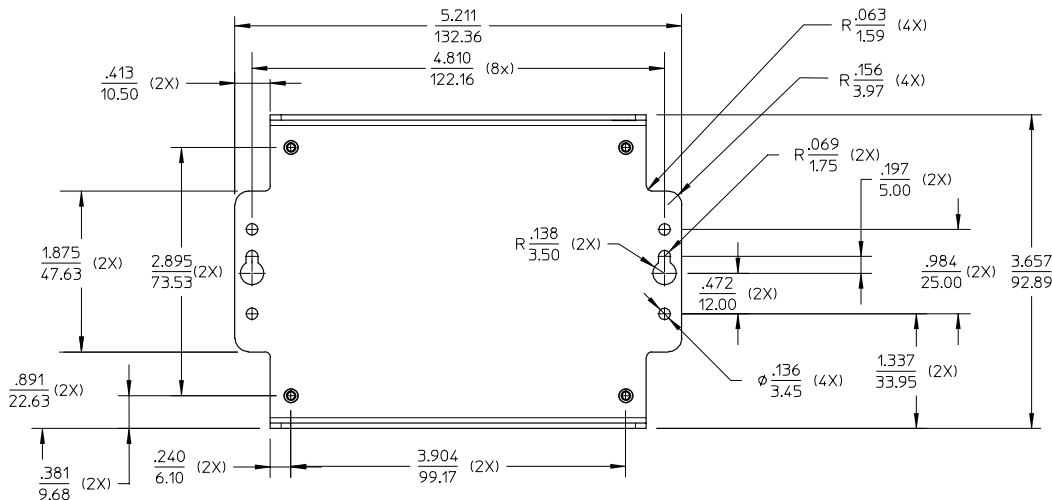
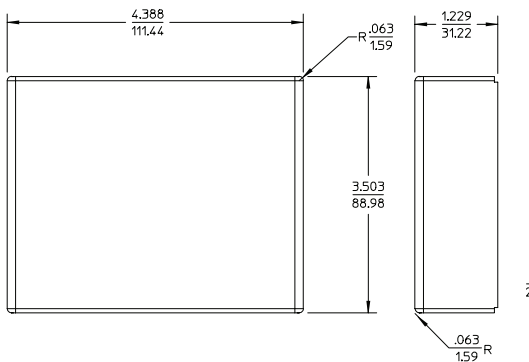
### ENVIRONMENTAL

Operating Temperature	-40 to +85 °C (-40 to +176 °F)
Storage Temperature	-40 to +85 °C (-40 to +176 °F)
Operating Humidity	0 to 95%, non-condensing

### REGULATORY

Approvals	FCC, CE, NEMA TS2 (IEC 61850-3, IEEE 1613, UL C1/D2, File: E245458)
CE - Directives	2004/108/EC – Electromagnetic Compatibility Directive 2011/65/EU – Reduction of Hazardous Substances Directive (RoHS2)
CE - Approvals	EN 55011 + AC – Information Technology Equipment – Class A RF Emissions EN 61000-6-2 – Generic Immunity Standard for (Heavy) Industrial Environments

## MECHANICAL DIAGRAM



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