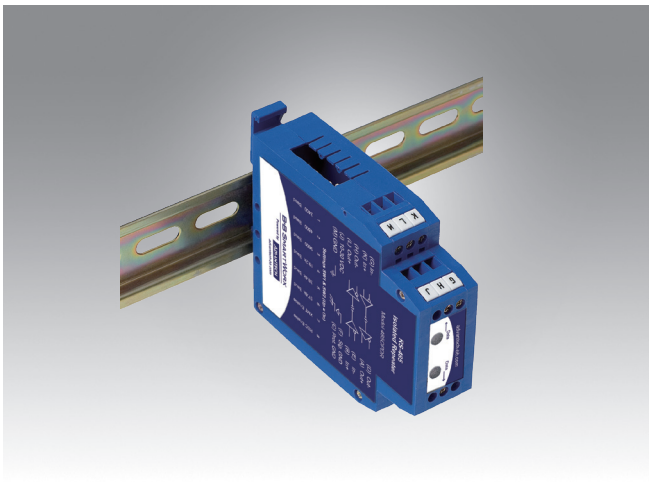
# BB-485OPDR

## RS-422/485 Repeater, Industrial



## Features

- Extends RS-422/485 data additional 1.2 km
- 2000V optical isolation for data lines; 600W surge suppression
- -40 to +80 °C wide operating temperature
- DIN rail mount (panel mount with optional adapter)
- Automatic Send Data control - no software drivers needed
- cULus Recognized, UL Recognized, CE, FCC
- 10-30 V power supply required (not included, sold separately)

## Specifications

### RS-422/485

- **Connector** Terminal block
- **Signals** TDA(-), TDB(+), RDA(-), RDB(+), GND
  RS-422 4-wire, RS-485 2-wire and 4-wire.
  Protected GND on isolated side.
- **Data Rate** Up to 115.2 kbps (switch selectable)

### Isolation

- **Method** Optical
- **Rating** 2000 V

### Surge Suppression

- **Method** TVS
- **Rating** 6.5V bi-directional avalanche breakdown device
  500W peak power dissipation
- **Response Time** <1 pico-second
- **Industrial Bus** Modbus ASCII / RTU

### Power

- **Connector** Terminal block
- **Voltage** 10 to 30 $V_{DC}$
- **Power Consumption** 0.7 W
- **Source** External source required

### Terminal Blocks

- **Wire Size** 24 to 14 AWG
- **Torque** 4 kgf-cm

### LED Indicators

- **2 Data LEDs (red)** Data LED for each side of isolator
  Flashes when data transmitted

### Enclosure

- **Material** Plastic
- **IP Rating** 20
- **Dimensions** 2.5 x 7.9 x 10.6 cm
- **Mounting** 35 mm DIN rail (panel mount adapter, sold separately)

### Environmental

- **Operating Temperature** -40 to +80 °C
- **Storage Temperature** -40 to +85 °C
- **Operating Humidity** 0 to 95% Non-condensing

### Meantime Between Failures (MTBF)

- **MTBF** 225299 hours
- **MTBF Calc. Method** MIL217F Parts Count Reliability

### Approvals, Directives, Standards

- **Agency Approvals** CE, FCC, KCC, cULus Recognized, UL508 UL Recognized
- **EU Directives** 2014/30/EU – Electromagnetic Compatibility Directive
  2015/863/EU – Reduction of Hazardous Substances Directive (RoHS)
  2012/19/EU – Waste Electrical & Electronic Equipment (WEEE)
- **EU EMC Standards** EN 55032 Class A – Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements
  EN 55024 – Information Technology Equipment – Immunity Characteristics – Limits and Methods of Measurement
  EN 61000-6-1 – Generic immunity standard for residential, commercial and light-industrial environments

## Ordering Information

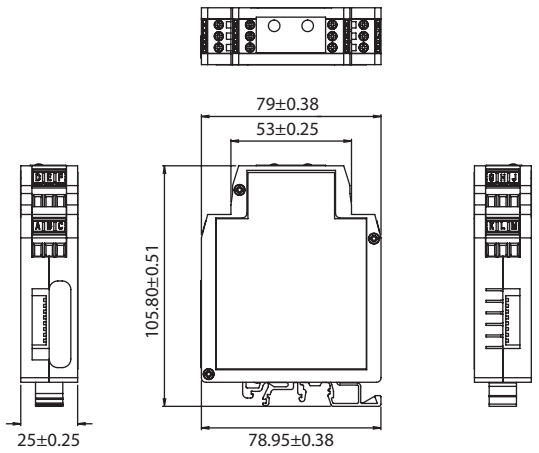
- **BB-485OPDR** RS-422/485 Repeater, Industrial

### Accessories – sold separately

- **BB-MDR-20-24** Power supply, 24$V_{DC}$, 1.0 A output, DIN rail mount
- **BB-MDR-40-24** Power supply, 24$V_{DC}$, 1.7 A output, DIN rail mount
- **BB-EK-CLIP-MPC** DIN rail clip for enclosure

## Dimensions

Unit: mm






All product specifications are subject to change without notice.