

# Industrial RS-422/485 Isolated Repeater

## Model 485OPDR

**B+B SMARTWORX**

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### PRODUCT FEATURES

- Extends RS-422/485 data additional 1.2 km (4000 ft)
- 2000V optical isolation for data lines; 600W surge suppression
- -40 to +80 °C wide operating temperature
- DIN rail mount (panel mount with optional adapter)
- CE, FCC
- cULus Recognized, UL Recognized
- Modbus ASCII / RTU

Model 485OPDR is a 2kV optically isolated RS-422/485 line repeater that can isolate a piece of equipment from the rest of the network. 600W surge suppression ensures that connected equipment is protected even in the harshest of environments.

As a repeater, it extends the distance of an existing network an additional 1.2 km (4000 ft) and expands it beyond the typical 32-node limitation. Data signals and power inputs connect to the terminal block. Supports 2-wire RS-485, 4-wire RS-485 and RS-422. Automatic Send Data Control means no software drivers required to install or manage.

Model 485OPDR operates on externally sourced 10 to 30 VDC power. The DIN rail mount enclosure is designed to fit easily on a standard 35mm rail.

### ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
485OPDR	RS-422/485 2 kV Isolated Repeater

### ACCESSORIES

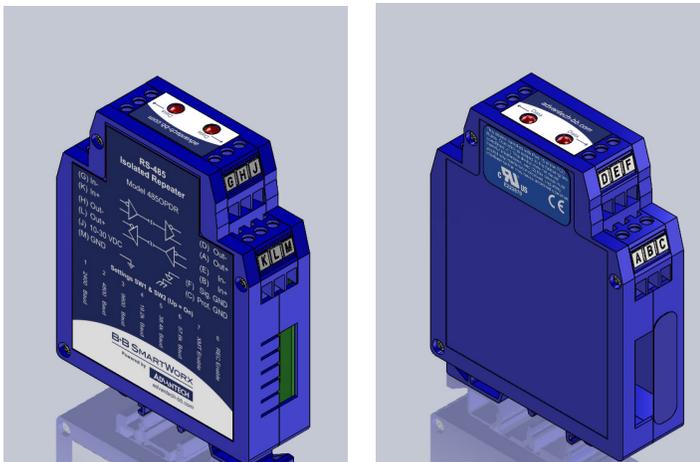
**MDR-20-24** - Power supply, 24VDC, 1.0 A output, DIN rail mount

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

**DRPM25** - 35mm DIN rail to panel mount bracket adapter, 25mm wide

**EK-CLIP-MPC** - DIN rail clip for enclosure

### MECHANICAL DRAWING



### 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.
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 VDC
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 9.5 cm (1.0 x 3.1 x 3.7 in)
Mounting	35 mm DIN Rail (panel mount adapter, sold separately)
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
MTBF	225299 hours
MTBF Calc. Method	MIL217F Parts Count Reliability
APPROVALS, DIRECTIVES, STANDARDS	
Agency Approvals	CE, FCC, cULus Recognized, File E222870 UL508 UL Recognized
EU Directives	2014/30/EU – Electromagnetic Compatibility Directive 2011/65/EU – Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU – Waste Electrical & Electronic Equipment (WEEE)
EU EMC Standards	EN 55032:2015 – Class A, Electromagnetic compatibility of multimedia equipment – emission requirements EN 61000-6-1:2007 – Generic immunity standard for residential, commercial and light-industrial environments

All product specifications are subject to change without notice.

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