

RS-422/485 Isolated Repeater

485OPDR

- ✓ Extend data up to 1.2 km (4,000 ft)
- ✓ 2000V optically isolated data lines
- ✓ -40 to +80°C operating temperature
- ✓ Modbus ASCII/RTU
- ✓ Complies with NEMA TS1 & TS2

Environmental requirements for Traffic

The 485OPDR is an optically isolated RS-422/485 isolated line repeater which can be used to isolate a piece of equipment from the rest of the network. 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 the power inputs connect to the terminal block. 600W surge suppression ensures that the connected equipment is protected even in the harshest of environments. 2-wire RS-485, 4-wire RS-485 and RS-422 are supported.

The repeater operates on externally sourced 10 to 30 VDC power. The enclosure has a DIN rail mount that is designed to fit on a standard 35mm rail. The 485OPDR is ideal for your critical communications needs.



Specifications

RS-422/485	
Connector	Terminal block
Signals	TDA(-), TDB(+), RDA(-), RDB(+), GND RS-485 2-wire, RS-422/485 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 (panel mount adapter is available)
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 Calculation Method	MIL217F Parts Count Reliability
NEMA TS1 & TS2	Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment
Agency Approvals	
	CE, FCC cULus Recognized, File E222870
Ordering Information	
485OPDR	RS-422/485 Isolated Repeater
Accessories	
MDR-20-24	24 VDC, 1.0 A DIN rail power supply
DRPM25	Panel Mount Adapter

