

Article Overview

A multimode fiber optic to RS-485 converter allows RS-485 serial data to be transmitted over multimode fiber, extending communication distances up to 2 km while providing electrical isolation and interference-free transmission.

Overview

Multimode fiber optic to RS-485 converters are devices that convert electrical RS-485 signals into optical signals for transmission over multimode fiber, and vice versa. This enables long-distance, high-speed, and noise-resistant communication between devices in industrial, automation, or fieldbus systems .

Key Features

- o Distance Extension: Multimode fiber allows RS-485 signals to travel up to 2 km, significantly longer than standard copper cabling .
- o Connector Types: Common fiber connectors include ST, SC, or SC-BIDI, with BIDI technology allowing single-fiber bidirectional communication .
- o Protocol Support: Compatible with MODBUS, MODNET-1/SFB, BIT-BUS, SAIA-S-BUS, and other manufacturer-specific RS-485 systems .
- o Data Rates: Typically support up to 500 kbps or higher, depending on the model .
- o Diagnostics and Monitoring: Some converters include LED indicators, optical diagnostics, and fault relay contacts to monitor fiber link quality and alert for errors .
- o Plug-and-Play Operation: Many units feature auto baud rate detection and data direction auto-turnaround, eliminating the need for software configuration .
- o Enclosure and Power: Industrial-grade converters often come in rugged steel or DIN rail-mounted enclosures with external power supplies .

Applications

- o Industrial Automation: Connecting PLCs, sensors, and controllers over long distances.
- o Fieldbus Systems: Safe and reliable data transfer in MODBUS or proprietary RS-485 networks.
- o Electrical Isolation: Protects devices from ground loops and electromagnetic interference.
- o Network Topologies: Supports point-to-point, bus, star, tree, or mixed structures .

Example Models

- o DL485-4W: RS-485 4-wire to multimode fiber converter with ST, SC, or SC-BIDI connectors, suitable for point-to-point connections and fieldbus systems .



485 to Multimode Fiber Optic Converter

- o SER-FIBER-MM: Industrial-grade RS-485 to multimode fiber converter with auto-turnaround, 8-position terminal block, and SC/ST fiber connectors, extending distances up to 2 km .
- o PSI-MOS-RS485W2/FO 850 T: RS-485 2-wire converter with integrated optical diagnostics and alarm contacts, supporting multimode fiber at 850 nm . These converters are ideal for industrial environments requiring long-distance, reliable, and electrically isolated RS-485 communication.

The unit extends the maximum distance of any RS232/RS485/RS422 signal up 1.2 miles (2.0 kilometers) using multimode fiber optic

RS-485 to Multimode Fiber Optic Converter (rdc485MFO) (Formerly known as rdc485FO) - Isolates and converts between optical

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The DL485-4W is a RS485 4-wire to multimode fiber optic converter for point-to-point connections. For

RS 485 to Fiber Optic Converter provide Multi-mode and Single-mode solutions. We are a leading supplier in USA, Europe, Africa

TCF-142 converters are used to extend serial transmission up to 5 km (TCF-142-M with multi-mode fiber) or up to 40 km (TCF-142-S

The DL485 is a RS485 2-wire to singlemode fiber optic converter for point-to-point connections. For

This price is for general public. Price may vary for registered customers.

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RS-485 Self-healing Ring Fiber Optic Converter The Rs-485 Self-healing Ring Fiber Optic Transmission series products provide an

The DL485-2x is a RS485 2-wire for fiber optic bus, star, tree and mixed structure to multimode converter.

Multimode Fiber Optic Converter RS-485 Isolates and converts between optical and RS-485 signals (fibre

Fiber optics transmission offers the benefits of wide bandwidth, immunity to EMI/RFI interference, and secure data transmission.

485 to Multimode Fiber Optic Converter

This unit features bi-directional serial conversion from 2 wire RS485 to a pair of ST 62.5 micron multimode

The Model277B allows the transparent transmission of the serial RS-485/422 port via a multimode fiber

The DL-485-MBR is a MODBUS to multimode fiber optic converter to create a redundant MODBUS network. As adapter you can

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