MDIM-485

Single-Port Gateway for Seamless Industrial Protocol Integration

Technical Features

- Seamless Modbus RTU to Modbus TCP Bridging
- Consistent Throughput for Modbus TCP
- Transparent Protocol Conversion
- User-Configurable Modbus Parameters
- Support for Multiple RTU Slaves
- Reliable Performance at 10 Mbps Ethernet
- Enhanced Electrical Protection
- Supports dual power input options
- Wide Operating Voltage Range
- Compact, Industrial-Grade Design
- DIN-Rail and Panel Mounting Options

Introduction

MDIM-485 is an industrial-grade RS485 to TCP/IP gateway engineered to enable seamless integration of legacy serial devices into network-based control systems. Designed for high-performance industrial environments, the MDIM-485 functions as a transparent protocol bridge, allowing Modbus TCP masters to communicate directly with Modbus RTU slaves over an IP network—without altering existing device configurations.

Product Specification

Ethernet communication	
Protocol Support	Modbus TCP
Data Rate	10 Mbps
Network Interface	1 x Ethernet (RJ45)
Compatibility	IEEE 802.3, IEEE 802.3U
Serial communication	
Port type	RS485
Port connector	Plug-in screw terminal block
No. of ports	1
Baud rate	50bps – 921.6kbps
Data bits	7, 8
Parity	None, Even, ODD
Stop bits	1, 2
Data signals	RS-485: Data+, Data-, GND
Protection	Surge protection, ESD protection
Terminator	120 ohms
LED Indicators	Serial: Tx, Rx

Modbus RTU	
Mode	Modbus RTU - Master
Functions supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max.no.of.commands	128
Modbus TCP	
Mode	Modbus TCP - Server
Functions supported	1, 2, 3, 4, 5, 6, 15, 16, 23
Max.no.of.commands	128
Electrical specifications	
Input supply - Screw terminal	6VDC – 36VDC
Input supply – Power jack	6VDC – 36VDC
Operating current	200mA @ 12VDC
Power consumption	3W
Physical dimensions	
Housing	Metal
Dimensions	51.48 x 82 x 5 cm (L x W x H)
Weight	160.4g
Environmental limits	
Operating temperature	-40 to 75 °C
Storage temperature	-40 to 85 °C

Ordering Information

Device name	Description
MDIM - 485	Modbus RTU/TCP Protocol Bridge

Product Dimension

MachDatum

The Industrial Data Weavers