

MDC-700 series

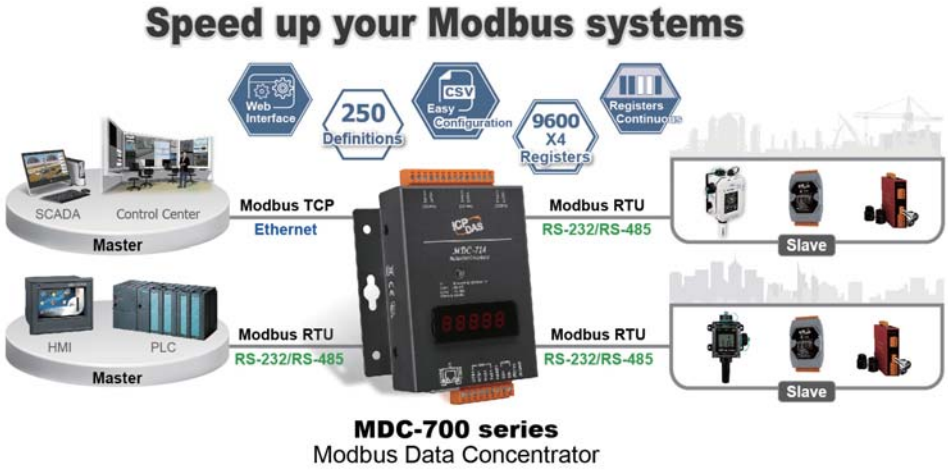
Modbus Data Concentrator with Ethernet,
RS-232 and RS-485 interfaces

Features

- Supports Modbus master/slave on the serial port and Modbus TCP slave on the Ethernet interface
- Supports up to 8 simultaneous Modbus TCP connections at one time
- Data pool for up to 9600 registers
- Modbus polling commands for up to 250 definitions
- Easy configuration with a simple CSV file for quick start-up
- HTML5 Web-based user interface

Introduction

MDC-700 provides Ethernet, RS-232 and RS-485 communication interfaces to integrate RS-232/RS-485 Modbus Slave devices into Ethernet. Through the user-defined command table, the MDC-700 will read the data of the devices connected to each COM port sequentially and merge them into a continuous address format, which is convenient for the host computer to read all the data at once.

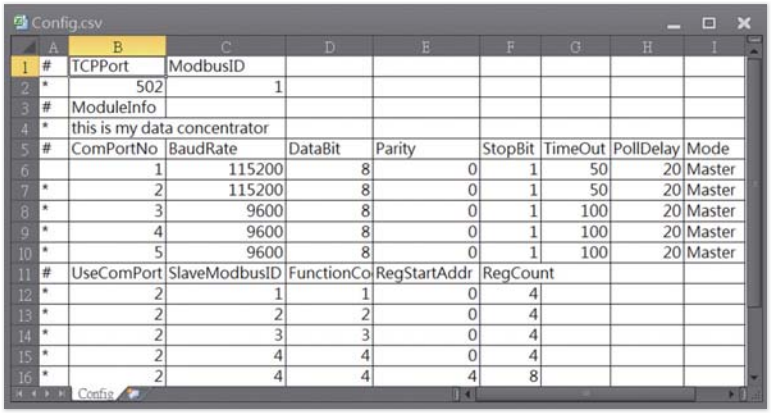


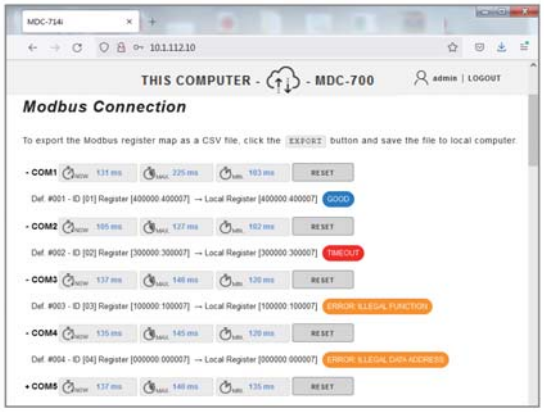
MDC-700 series
Modbus Data Concentrator

Key Features

- **Great Data Capability**
  - Supports up to 250 Modbus/RTU definitions (commands)
  - Handles up to 9600 data points for each of of AI, AO, DI, DO types
- **Efficient Communication Design**
  - Combines data from multiple sources into a continuous address for efficient bulk reading/writing by the host
  - Each COM port communication is performed in parallel to speed up the COM port communication
  - Write commands (e.g., write holding registers, write Coils) are queued with first priority to ensure fast data updates
- **Flexible Host Connectivity**
  - Connects with up to 8 Modbus/TCP host controllers simultaneously
  - The COM ports can be used as Modbus RTU masters or slaves.
  - Simplifies system architecture and reduces Ethernet traffic for improved performance
- **Seamless Legacy Device Upgrade**
  - Easily upgrades Modbus RTU devices to Ethernet-based systems
  - Ideal for SCADA applications, enabling fast deployment of centralized data monitoring solutions
- **Easy Configuration and Maintenance**
  - Configuration via a CSV file
  - Clear structure supports efficient batch command setup
  - Web-based interface for quick and easy configuration import/export and system startup

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Specifications

Model Name	MDC-711	MDC-714	MDC-714i	MDC-741	MDC-771
Ethernet					
Port	x1, 10/100 Base-TX				
Protocol	Modbus/TCP Slave				
Max. connection	8				
COM port					
RS-232	x1, (TXD, RXD, RTS, CTS, GND)			x4, (TXD, RXD, RTS, CTS, GND)	x1, (TXD, RXD, RTS, CTS, GND) x6, (TXD, RXD, GND)
RS-485	x1, (Data+, Data-)	x4, (Data+, Data-) (MDC-714i with 3 isolated ports and 1 non-isolated)		x1, (Data+, Data-)	
Baud Rate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200				
Data Format	N81, E81, O81				
Protocol	Modbus RTU Master/Modbus RTU Slave				
Max. Node	32 nodes for each RS-485 port				
Polling Definition	250 definitions for all RS-232/485 ports				
Shared Memory	9600 registers for each of AI, AO, DI and DO data				
System					
5-Digit 7 Segment LED Display	Yes, to display IP address				
System LED Indicator	Yes, to display hear beat				
Mechanical					
Material	Metal				
Dimension (W x H x D)	102 mm x 125 mm x 28 mm				
Installation	Wall Mount				
Power					
Required Supply Voltage	+10 VDC ~ +30 VDC (non-regulated)				
Power Consumption	2.5 W				
Environment					
Operating Temperature	-25°C ~ +75°C				
Storage Temperature	-30°C ~ +80°C				
Humidity	10 ~ 90% RH, non-condensing				

Ordering Information

MDC-711 CR	Modbus data concentrator with 1 x Ethernet, 1 x RS-232 and 1 x RS-485 (RoHS)
MDC-714 CR	Modbus data concentrator with 1 x Ethernet, 1 x RS-232 and 4 x RS-485 (RoHS)
MDC-714i CR	Modbus data concentrator with 1 x Ethernet, 1 x RS-232 and 4 x RS-485 comprised of non-isolated and isolated ports (RoHS)
MDC-741 CR	Modbus data concentrator with 1 x Ethernet, 4 x RS-232 and 1 x RS-485 (RoHS)
MDC-771 CR	Modbus data concentrator with 1 x Ethernet, 7 x RS-232 and 1 x RS-485 (RoHS)

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