MDC-711/MDC-714/MDC-741

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

Features

- Web-based user interface
- Easy configuration with .CSV file
- Supports the Modbus RTU master and slave
- Support for up to 8 Modbus TCP masters
- Data pool for up to 9600 registers
- Modbus polling commands for up to 240 definitions
- Upgrade Modbus/RTU devices with Ethernet communication ability
- Speed up the time for reading from multiple Modbus/RTU devices

Introduction

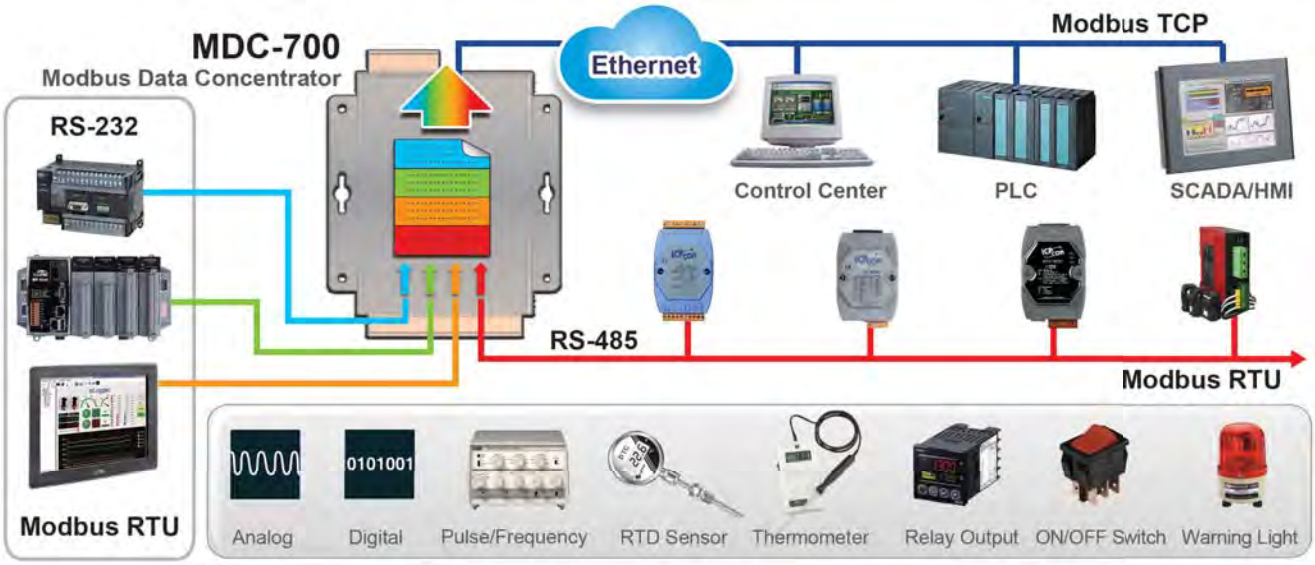
MDC-700 series is a Modbus Data Concentrator that has ability to perform up to 240 Modbus/RTU commands to read data from Modbus slave devices via RS-232/485, and allows up to 8 Modbus/TCP masters to get the polled data via the Ethernet.

MDC-700 series comes with a built-in web server to ease the configuration process and provide clear information for the communication status of each Modbus/RTU command on the RS-232/485.

Modbus Data Concentrator

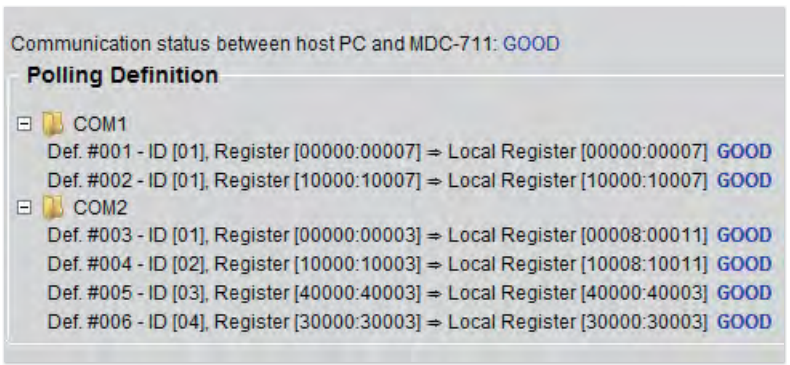
The MDC module performs the pre-defined Modbus/RTU commands to read data from the Modbus/RTU slave devices via the RS-232/485. It mirrors the data of the slave devices to its own shared memory. And it accepts up to 8 Modbus/TCP masters to directly read data form the shared memory instead of polling Modbus/RTU slave devices one by one.

This way not only makes the data on the RS-232/485 sharable to multiple Modbus/TCP master but also shorten the time to read data from multiple Modbus/RTU slave devices.



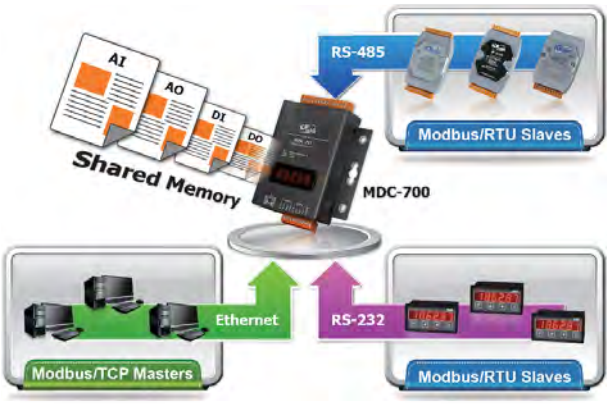
Web Sever to Ease the Operation and Show Clear Information

By using a regular web browser, users can set a MDC-700 module, get the necessary configuration information on the module, and get the status of each connection. It is helpful to debug which Modbus/RTU device has communication problem.



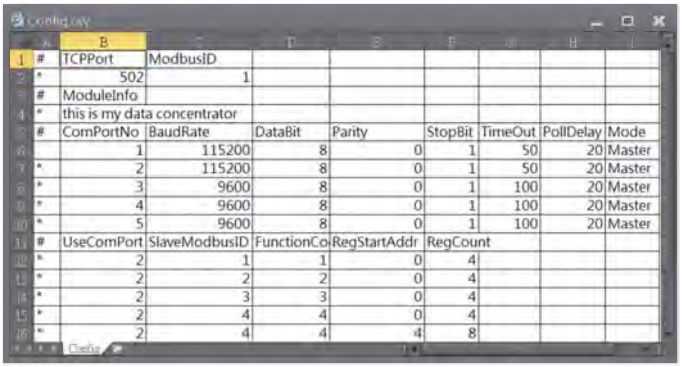
Great Capability of Shared Memory

The MDC module can perform up to 240 polling definitions. And the internal shared memory has four tables to store the polled AI, AO, DI and DO data. Each table can store up to 9600 registers.



Config.CSV to Ease Hard Work of Editing a lot of Definition

The Modbus polling definition is defined in a Config.CSV file. Editing/checking a lot of polling definitions is a hard work and it may be making mistakes. A CSV format file can ease the work by using Excel. Furthermore, the built-in web server allows users to import/export the Config.CSV via a simple mouse-click action.



	A	B	C	D	E	F	G	H	I
1	#	TCPPort	ModbusID						
2	*	502	1						
3	#	ModuleInfo							
4	*	this is my data concentrator							
5	#	ComPortNo	BaudRate	DataBit	Parity	StopBit	TimeOut	PollDelay	Mode
6	*	1	115200	8	0	1	50	20	Master
7	*	2	115200	8	0	1	50	20	Master
8	*	3	9600	8	0	1	100	20	Master
9	*	4	9600	8	0	1	100	20	Master
10	*	5	9600	8	0	1	100	20	Master
11	#	UseComPort	SlaveModbusID	FunctionCo	RegStartAddr	RegCount			
12	*	2	1	1	0	4			
13	*	2	2	2	0	4			
14	*	2	3	3	0	4			
15	*	2	4	4	0	4			
16	*	2	4	4	4	8			

System Specifications

Model Name	MDC-711	MDC-714	MDC-741
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)
RS-485	x1, (Data+, Data-)	x4, (Data+, Data-)	x1, (Data+, Data-)
Baudrate	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 (bps)		
Data Format	N81, E81, O81		
Protocol	Modbus RTU Master/Modbus RTU Slave		
Max. Node	32 slaves for each RS-485 port		
Polling Definition	240 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 heartbeat		
Mechanical			
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)	**Art. No. 150494**
MDC-714 CR	Modbus data concentrator with 1 x Ethernet, 1 x RS-232 and 4 x RS-485 (RoHS)	**Art. No. 145571**
MDC-741 CR	Modbus data concentrator with 1 x Ethernet, 4 x RS-232 and 1 x RS-485 (RoHS)	**Art. No. 150495**